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THE

CONNECTICUT SCHOOL JOURNAL.

NEW SERIES. NEW HAVEN, CONN., MAY, 1873. VOL. III., NO. 5

NATURE AND PROVINCE OF ENGLISH GRAMMAR.—No. I.

BY REV. M. C. STEBBINS,
Principal of the Springfield (Mass.) High School.

Language may be studied for a variety of purposes. The leading objects in view will, of course, determine the kind and direction of the study. Hence arise different sciences of language.

Logic treats of the mental processes that are concerned in argumentation; as an art, it embraces the rules which must be observed to avoid errors in the construction of arguments.

Rhetoric, according to Archbishop Whately, has for its popular province "the finding of suitable arguments to prove a given point, and the skilful arrangement of them." Usage, would, perhaps, admit some extension of this definition.

Philology treats of the historical development, and changes that language has passed through.

All these, and kindred studies, presume, and are conditioned upon, a knowledge of what is generally termed grammar, which includes the facts and principles involved in the correct use of language as an instrument for the expression of thought. In its most restricted sense, grammar embraces the two departments of etymology and syntax. The former treats of the nature and power of the constituent elements of words, the pronunciation of words, their inflection, derivation, composition, and classification; the latter involves the doctrine of the construction of sentences, and teaches the various relations which single words and the more extended elements of a sentence sustain to each other: it shows by what means and methods a leading thought is extended, restricted, or changed, by the right use of words and phrases.

In the study of grammar we are much more concerned with the inquiry "What is?" than with the question "What might be?"

The province of the grammarian is not to reconstruct the principles of language, but to discover, recognize and teach the facts and principles which usage has established.

Since language is the creature of thought, a mechanical and arbitrary device to enable thought to express itself, it is evident that we can gain no adequate and philosophical knowledge of it, except by studying it in the most intimate connection with that which gives it being, form, and significance. It will readily appear that grammatical properties inhere in thought rather than in arbitrary symbol of thought.

Here we find a basis for the classification of words into the several parts of speech. In the *forms* of the two words *beaver* and *greater* we find no reason for calling one a noun and the other an adjective; but when we have learned that *beaver* represents an animal, and *greater* designates a quality, we have found an easily comprehended difference. Observation will soon reveal the fact that there is a large number of words that have been set apart to denote independent objects of sense and reason, and another class as distinctly and exclusively used to describe such objects. Thus we get our nouns and adjectives.

How long would a novice have to study the forms of words to determine whether *the* and *she* should be assigned to different classes. But our language abounds in cases more perplexing than these, for we have multitudes of words that carry diverse meanings in the same form. *Love* may express a passion, or an action; *Telegraph* may stand for an instrument, and thus be a noun; it may describe something and be an adjective, or it may express an action and be a verb.

Some have ignored the subdivision of nouns upon the ground that there is nothing in the form which we can, in one instance designate as common, and in another, proper. Beyond question it is true that the word *patience* when used to designate a cardinal virtue is composed of the same letters arranged in the same order as when it is used as the name of an individual, but the radical difference in the purposes of the word in the two cases has a right to recognition. So the words *hose, goodness, army,* and *running,* as nouns, have severally a distinctive peculiarity, in regard to which they are the representations of just so many classes. This peculiarity is not discoverable in their form, but only in their meaning. In the study of grammar

we must either ignore these facts, or give them appropriate designation.

Passing now to the attributes of nouns. How shall we determine what they are? I claim that we cannot determine by mere examination of the form. The test questions in grammar are primarily directed to usage; the facts in regard to form are subordinate and subsequent.

It is perfectly evident that nouns in English have no peculiar forms whose province it is to represent the grammatical attribute of person, and, in this respect, it is precisely like the Latin and Greek. Yet, in the three languages, all nouns represent realities that, whenever they are the subjects of discourse, are represented as sustaining one of these three relations, speaking, spoken to, or spoken of. Latin, Greek, and English Grammarians have generally recognized this fact, and have agreed in saying that when a noun represents the speaker, it is of the first person; when it represents the object addressed, it is of the second person; and when it represents what is spoken of, it is of the third person.

Such language seems to me sufficiently clear and precise. To demand that something should be abstracted from the word and be presented so as to be cognizable by the senses, is to abuse language, and do violence to all true philosophy of language. It is but a revival of the mischievous error long ago exploded, that there is, or can be, an objective reality corresponding to a general term denoting a class. There is still another reason for recognizing this grammatical attribute as belonging to nouns, viz.; the harmony of language. Pronouns are generally defined as words that stand for nouns. I believe that those who deny the attribute of person to nouns. concede that it belongs to pronouns. How can a word that stands for a noun have attributes which the noun for which it stands does not have? When we say that *he* is of the third person, we do not assign as a reason for the statement any peculiarity of form, but simply that it represents what is spoken of. Then, in the sentence, *James is going to Boston*, we evidently have precisely the same reason for saying that the noun *James* is of the third person.

Shall we teach that nouns have the attribute of gender? In answering this inquiry I do not feel called upon to treat very seriously the objection that there is no such thing as the sex of nouns. The significant fact is this; distinction of sex is an objective reality, and it is definitely recognized in the structure of language. This recognition gives it a measure of controlling power in the language. The province of the grammarian demands that he should take note of this and give expression to it in intelligible and appropriate terms. I do not object to the statement of this matter found in Swinton's Progressive English Grammar, just issued by Harper & Brothers: "The English speech is the simplest of all languages in its rules for gender. We know the gender of any noun by its sense. If it denotes a living being, it is masculine, or it is feminine, according to the sex of the being. If not the name of a living being, the noun is said to be neuter, that is, neither masculine or feminine." He adds: "The term common gender is applied to nouns that may be either masculine or feminine, as parent, child." Again: "When an inanimate object is represented as a living person, it is said to be personified. Thus words of the neuter gender become masculine or feminine; illustrated thus:

> 'For Winter came: the wind was his whip,
> One choppy finger was on his lip;
> He had torn the cataracts from the hills,
> And they clanked at his girdles like manacles.'

In the same way the sailor speaks of his ship, and the hunter of his gun as *she*. We speak of the sun as he, and of the moon as she; but our Anglo-Saxon forefathers spoke of the moon as he and the sun as she."

That all this puts the matter of grammatical gender as independent of form needs no argument. That it is in perfect accord with the theory of grammar which I am advocating is equally plain.

Can the theory of number be successfully taught by the consideration of form alone? For one, I willingly confess that I should not know how to begin or how to proceed to accomplish the feat. It is, however, a simple matter to teach the numerical distinction between one and more than one. From this we proceed to observe that some nouns and pronouns, in some instances, represent severally one object, and, in others, more than one, and are accordingly said to be in the singular or plural number. To what extent, and in what manner, this peculiarity is indicated by anything pertaining to the form of the words should be taught as concomitant truth. Instead then of teaching pupils that such words as *deer* and *sheep* have no number, we should teach in accordance with the facts, that is, the number of such nouns is not indicated by the form, but must be learned in every instance by the connection in which they stand. For example, if I meet with this sentence: "The sheep roamed at large during the day, but at night were gathered together under shelter;" I do not hesitate to say that the noun *sheep* here is in the plural number; and since some may be partial to a modern and pro-

gressive grammar, I will again quote from Swinton's. "Pronouns should agree in gender and number with their antecedents, or with the nouns or pronouns that they represent." This general rule is emphasized in a note as follows: "This is the most important practical principle in the syntax of of pronouns."

Perhaps this makes my doctrine of number as a grammatical attribute sufficiently explicit.

What shall we say in regard to case? We do not propose to abandon at this point the guiding principle which has thus far kept us so easily and so clearly in the light. Those who claim that grammatical attributes are mere forms, seem to think that they can make a strong point here. Some have assumed that the claim that in the Latin and Greek languages cases are mere forms would be generally conceded. It appears to me that such a concession cannot reasonably be made. If some expressions used by the authors of our standard Latin and Greek grammars appear to countenance such a notion, I am quite sure that when this doctrine of the several declensions, and of the syntax of nouns, pronouns, and adjectives is carefully studied, there will be found but small foundation for the pure form theory. Prof. Harkness, in his excellent grammar, says: "The Latin has six cases," and gives the following table:

Names,	*English Equivalents.*
Nominative.	Nominative.
Genitive.	Possessive or Objective with of.
Dative.	Objective with to or for.
Accusative.	Objective.
Vocative.	Nominative Independent.
Ablative.	Objective with from, by, in, or with.

"In form the several cases are distinguished from each other by certain terminations called case-endings; but certain cases are not distinguished in form. Thus, the nominative, accusative, and vocative in neuters are alike. The nominative and vocative are all alike in all nouns except those in *us* of the second declension. The dative and ablative plural are alike."

The Latin word for cloud, *nubes*, has this one form unvaried for the nominative and vocative singular, the nominative, accusative, and vocative plural. The same is true of many other nouns. In the fourth declension nouns in *us* have one form for three cases of the singular and three of the plural. Nouns in *u* of the same declension have one form for five cases of the singular number, and another form for three cases of the plural; yet this indentity of form is not recognized as an element of the slightest consequence in the doctrine of syntax. The fact that in the Latin language there are six kindred methods of indicating the relation of nouns and pronouns to other words determines that the number of cases is six. For a like reason grammarians have assigned five cases to the Greek, and three to the English. It must appear evident then that the doctrine that case is simply form is as truly antagonistic to the accepted principles of Latin and Greek, as it is to what some choose to call "the old method of English Grammar."

The doctrine of the verb will require another paper for its discussion.

SOME RECENT DECISIONS IN SCHOOL CASES.—No. I.

BY JOHN D. FERGUSON, ESQ., STAMFORD.

Through the courtesy of Secretary Northrop any teacher can now obtain, on application, a pamphlet copy of the School Laws of Connecticut, as revised and re-enacted by the last Legislature. Few important changes will probably be made for some time, and it is an excellent opportunity for teachers, with no excessive labor, to make themselves familiar with the provisions of the system under which they are working. Not only may knowledge save the teacher himself from disappointment and loss, but he may make it of very essential service to the district in which he is.

No system of statute law, however, can provide in advance for cases that may occur, and questions of more or less interest upon school topics are continually arising in our courts, and it is the purpose of this article to condense some of the more recent of these for such of the readers of the JOURNAL as have not the opportunity or inclination to seek them out in the pages of the Reports.

We will commence with two Connecticut cases, decisions of our Supreme Court, premising, however, that as the only knowledge we have of the facts of either, is from the report, no opinion on the *merits* is intended to be expressed.

The first is the case of Gilman *vs.* Bassett, decided in 1866, and reported in vol. 33, Conn. R., p. 298.

It is on the respective powers of districts, and their committees in the employment and dismissal of teachers; and the decision is that the district may, by vote, control the action of its committee in this respect.

The committee of one of the Hartford schools dismissed one of their teachers for reasons of expediency—not affecting her faithfulness or compe-

tency. The district, at a legal meeting, voted to instruct the committee to reinstate her. This the committee refused to do, and the district, by a special committee, applied for a writ of *mandamus* to compel their obedience. Judge Butler, in giving the opinion of the court in favor of the district, says: "The law constituted the district a corporation, and imposed upon it the duty of establishing and maintaining the necessary schools within its limits. For that purpose all necessary power is given, and the district is required and expected to elect a district committee. If they refuse to do so, the Board of School Visitors are authorized to appoint them, and if the district neglect to provide a teacher and rooms, the committee are authorized to to provide them, that a school may be kept, and the education of the children secured.

But such authority is given to the committee contingently, to be exercised only in the event that the district fail to exercise their power, or do their duty. When the district act either in respect to teachers or rooms, their action is exclusive, and the committee are powerless; they cannot override the action of the district, and if that action is conformable to law; they should obey or resign, or show some legal excuse for their disobedience. If they fail, it is the duty of the court, on application, to compel them to obey, by mandamus.*

This case is a good instance of the partiality,—if we may use the expression—of the New England law to the "little democracies," which, in one form or another, have played so large a part in her history. Probably in no other country in the world would such an appointment be left to popular vote. A word of caution may be necessary here in regard to it. The case is referred to in a note in § 97 of the school law, pamphlet edition, as deciding that a teacher may be discharged by either district or committee "if they think it for the interest of the school."

So broad a statement seems likely to mislead. A teacher may be discharged for his own misconduct, or for failure to perform his part of his contract with the district; but if he is able and willing faithfully to do that which he has undertaken, the district engaging him is bound to employ or pay him for the full term of his engagement, and can in no way avoid the obligation. The other Connecticut case, to which we wish to refer, bears directly upon this point. It is the case of Wilson *vs.* East Bridgeport, 36, Conn. R., pp. 280.

*For the penalty imposed on a committee failing to call a meeting on a proper requisition, see section 90 of new school law.

The outgoing district committee had engaged a teacher for the ensuing year, who began teaching, and continued in the position for seven months. For some reason, however, the new committee wished to displace him.

They claimed, in the first place, that the old committee could not make engagements to continue after their own terms of office had expired. And, in the second, that the teacher was not entitled to pay because he had not a certificate from the Board of School Visitors of the year for which he was employed.

On both points the decision was against the district and in favor of the teacher, sustaining the power of committees to contract with teachers for a period beyond their terms of office, and deciding that a certificate in general terms—unless annulled by the School Visitors—would be sufficient at any time in any district of the town.

The idea suggested by the court in this case of certificates of different grades was adopted in the revision of the law, and School Visitors are now expressly authorized (§ 40) to grant certificates, available for any school in the town as long as desired; for any school for a single term, or for a particular school for a single term.

The first point, too, is important in tending to give greater permanence to teachers engagements. Heretofore it has often been the case that although the committee had really wished to retain a good teacher, and although the teacher would have been glad to stay, the belief that such arrangement was exclusively the prerogative of the new committee has prevented any arrangement.

Now that the legal difficulty is out of the way, the obvious propriety of the engagement of teachers by a man who, by service as committee, has become familiar with the wants of the School, must commend itself to all.

MUSIC—A SKETCH OF ITS ORIGIN AND GROWTH.—No. II.

BY J. A. FOWLER, ENGLEWOOD, N. J.

I will not occupy sufficient space in this Journal to record the various methods adopted, and the various devices resorted to, to render music, in its undeveloped state, a source of pleasure and delight to mankind, but content myself in what follows, with a brief allusion to the first steps taken to establish it as a science, and with noticing the progress of that science during the past six or eight

centuries. Franco, of Cologne, who flourished between 1020 and 1066, was the first writer who treated of measured notes, and for two centuries after this time, there was little change in harmony. Chromatic passages appear first about the commencement of the fourteenth century, and several musicians began then to give harmony a more agreeable form. Subsequently some musicians of the Flemish school, who flourished in the early part of the fifteenth century, greatly augmented the stores of harmony, and led the way to the more elaborate combinations of modern composers. The first great composer, whose works can compare favorably with those of modern times. was Palestrina, who died in 1594, having written several motetts and masses of great beauty and finish, and elaborated them with the hand of a master. About this time complete dramas, founded on some story from Holy Writ, were set to music and sung ; and these obtained the appellation of " Oratorio." Soon after Palestrina, and stimulated by his brilliant career, the schools of Rome, Naples, Venice, Milan, &c., encouraged the study of music to such an extent, that they sent out many eminent masters, whose names are as familiar to our ears as household words. We have now arrived at a period when a most brilliant galaxy of authors appeared upon the stage in rapid succession, before whose genius we offer daily oblations, and to whose inspired productions we daily listen with rapture. Their names will sound familiar to the readers of this Journal, and I will give them in chronological order as they appear upon the stage—Handel, 1684 ; Bach, 1685 ; Hayden, 1732 ; Mozart, 1756 ; Beethoven, 1770 ; Von Weber, 1786 ; Rossini, 1792 ; Meyerbeer, 1794 ; Donizetti, 1799 ; Bellini, 1802 ; Mendelssohn, 1806.

It is needless to reiterate what has so often been said before, that these names stand pre-eminent, as the founders of our musical faith, and as authors of the most sublime musical faith the world has ever known. One fact appears more prominent than all others, and has already been alluded to in this imperfect sketch. It is, that while the triumphs of genius in literature, philosophy, painting, sculpture, &c., had, even anterior to the birth of Christ, been so great ; while Greece and Rome had been pouring the light of a high civilization upon mankind ; melody, that little seed that contained the germs of exhaustless harmonies, had during three long ages, laid dormant, and had remained almost a dead letter until the advent of Handel and his compeers. In the brief space of two centuries, it sprang into life, and germinated with such astonishing rapidity, that, during this time, the foundation stone was laid, and the superstructure reared of a profound science and an art above all other arts, an inspiration from Divinity. Although trespassing too largely on the space of this Journal, I have been able only to hint at the different stages of musical progress up to the beginning of the present century. I trust, however, these hints may be of some value to those interested in the history of art, if not to the general reader.

WORD STUDY—NO. V.

BY PROF. H. N. DAY, NEW HAVEN.

The theory, which has in former times extensively prevailed, ascribing the origin of language to an immediate act of divine creation, is now exploded. It is a mere assumption without historic proof, against all probability, and, in itself, inconceivable. God is the originator of words as he is of leaves ; he made man to be a speaking, word-forming being, as he made the plant leaf-forming. Words are mediately from God, as are leaves ; they are immediately from his creature man, as leaves are from the trees, which he also created.

Words are, as we have all along recognized, expressions of thought. They come to be, they are formed by man, as he has occasion to embody or express his thought. The thought is the germinal principle of language—of all words. Any valid theory of the origin of language must begin with the thought to be expressed, not with the sound, the outer word-form. Not merely thought to be embodied or expressed, but, as a matter of fact if not of probability, thought to be communicated, must be recognized as the origin of words. Speech is social. The facts in regard to the expression of those who have been separated from all human society from infancy, decisively prove that men, living exclusively among mute beasts, grow up as mute as their companions. No one has been found to have any speech. Now, as one man can communicate to another only through the bodily sense, it is plain that words, as the medium of communication of thought, must necessarily be at the first formed out of what is common to the sense of him who utters the thought, and to the sense of him who is to receive the thought uttered. Here it must be confessed that there are sounds which are natural expressions of certain feelings, and which are already associated so far with certain thoughts. The use of these sounds, accordingly, is a natural procedure in originating language, that is, in forming words to express such thoughts. There is so much ground for the *interjectional* theory of the origin of language. But this is an utterly inadequate account of the rise of language in general. It is altogether improbable that the first

thoughts to be communicated between two human beings, for the first time communicating with each other, would be thoughts thus closely associated with such feelings as have a vocal expression peculiar each to itself; and the great mass of words cannot be traced to this origin. It must be confessed, also, that there are sounds in nature, as the whistling of the wind, the gurgling of a rivulet, and the like, which are so closely associated with certain ideas that the imitations of the sounds are natural expressions of those ideas, and would, when uttered, be readily understood. But only a very few words comparatively in a language can be traced to this origin. This *onomatopoetic* theory of the origin of language is accordingly untenable. Dismissing the *ring* or *phonetic-type* theory of Max Müller as equally groundless and unsatisfactory, there remains the common-sense theory that language, as a whole, originates in the selection, by the speaker, of some sound which is associated in some way with the idea he wishes to communicate in the minds alike of both speaker and hearer. This association, made immediate at first, becomes at length very remote, and traceable only through many steps. This theory of the origin of language—that language is the natural embodiment of thought in some sound immediately or remotely identified by both speaker and hearer with the thought—obviously embraces the interjectional and onomatopoetic theories which, in truth, evidently owe all their validity to this more general principle. The two most fundamental and comprehensive conditions and regulating principles of word-formation are accordingly the nature and forms of thought as the germinal principle on the one hand, and community of sound or symbol between speaker and hearer on the other.

But this characterizes only the first, the originating stage of word-formation. Words once formed, modifications of these words and derivations from them take place in the progress of language, subject ever to the two originating and conditioning principles that have just been mentioned—the determining thought to be communicated and the common symbol as the medium or body of the expression. There are here, in the progress and growth of language, two distinct, general procedures, to be recognized with their respective subordinate movements.

The first procedure is that of derivation in its largest sense. It includes [1] the inflection of words to express either the respective shades of thought in its intrinsic properties or relations or the relation of the words themselves in the sentence, and also [2] the derivation of words in the narrower sense, as from an original stem are formed words to serve as different parts of speech, or to express diverse modifications of the thought.

The other procedure is in the way of borrowing words and forms of words which have been introduced for one purpose to perform a different function in the expression of thought. The extent to which this process is carried, while it is very natural, is far greater than might at first be conjectured. The great work in speech-forming, it must be borne in mind, is to embody the precise form and shade of thought into a sensible symbol, common to both the party communicating and the party receiving the thought. Language in its growth adds symbol to symbol. It naturally uses a symbol already recognized in preference to all others—uses preferably a word already adopted as the symbol of a thought. This is the most natural, the easiest, altogether the best way—to use adopted forms as far as possible. Pronominal words are used for object words. Object words are used for thought or copula words. Attribute words are used for subject words. Nouns are used for adjectives. Moreover a word originally used as a certain part of speech is used for another. The two underlying conditions and governing laws of this borrowing and appropriating process are: First—That the thought retain to some extent its identity; and, secondly, that the new use be such that the hearer shall identify it as a fit symbol of expression in common with the hearer.

If it be considered that a very slight feature may serve the purpose of enabling a hearer to identify the symbol with the thought—the borrowed use of a word with the new thought to be expressed—it will not be thought strange that words thus borrowed should sometimes lose so much of their original force and expression as hardly to be identified except by the diligent student of the history of the language. This is exemplified in the use of what are called yerb-auxiliaries. A novice in the growth of the English language would probably be stumbled by such expressions in our common English Bible, as "there is not any that *can skill* to hew timber with the Sidonians;" "all that *could skill* of instruments of music." *Can* and *could* are now so exclusively used as auxiliaries, and have retained so little of the thought originally expressed by them, that it would hardly enter his mind as possible that they are, in these expressions we have quoted, principal verbs governing *skill* in the infinitive. *Have*, once exclusively a principal verb, was early borrowed to be used as an auxiliary in inflection, modifying greatly in this borrowed use its primitive force. *Had*, as used in verb connections as *had rather be*, exemplifies the use of a past-tense form to express a contingent modification of the copula—a potential form—and is precisely equivalent to *would have*.

Language thus is characteristically symbolical. As a symbol it symbolizes something; it is symbolical ever of thought—of thought in its modifications exclusively. It is symbolical inasmuch as it ever stands as an outward thing addressing the sense, identified by some element or relation in the minds of both speaker and hearer with the thought which it expresses—is, to speak in loose language, associated somehow with the thought. To enumerate and define these modes of symbolizing—of identifying or associating outward sound-form with inner thought-form—is the characteristic function of the philosophical grammarian.

Young Teachers' Department

COMPOSITION.—No. II.

BY CHARLES NORTHEND, NEW BRITAIN.

In a previous article we spoke of composition in its simplest form—endeavoring to give a hint or two for teachers of the youngest pupils. We will now offer a few suggestions for teachers of more advanced scholars—such, for example, as may be found in our Intermediate and Grammar schools.

We are well aware that both teachers and pupils have had a dread of this exercise in schools. This has come from an improper way of treating the subject, and not unfrequently from the assignment of unsuitable themes or topics. We have known teachers to require their pupils to write on "Virtue," "Friendship," "Procrastination," "Temperance," &c.: pupils, too, who have never received any special hints about composing, and who had previously not written on simpler and more appropriate subjects. The true way is to begin in a simple way and to lead on step by step. We will suppose your pupils have received some training in oral composition. They are now old enough to write legibly. You write on the blackboard the word "Winter, and say: "Scholars I wish each of you to-day to write me something about winter, or some sentence which shall contain the word winter. You may pass to my desk whatever you may write when you leave school this afternoon." At night, let us suppose you find the following upon your desk:

"We have had a very cold winter."

"I like winter because i can skate and slide down hill."

"We have had a great deal of snow the last winter, and It has been very good *slaying* all winter."

"I love to ride in a sleigh in the winter and to hear the merry bells."

These and many others will constitute the result of the day. The next morning let them be read to the school, and if there are any errors (as in the examples given) call attention to them and have them corrected. Commend them for what they have done, and thus encourage them to try still more earnestly. For awhile you may daily place upon the blackboard a few words, with the request that each pupil write as many sentences as you have words upon the board—each sentence to contain one of the words. We will suppose the following words are given: *garden; kite; orange; school.* One pupil writes the following;

"I love to walk in the garden and see the pretty flowers."

"I saw a kite yesterday, and it was flying very high."

"My mother gave me a very nice orange one day last week."

"We go to school that we may learn to read and spell."

After exercises like this have been continued a few days you may take an advanced step. Ask your pupils to write one sentence which shall contain the following words: "*Summer, apples, grass, flowers.*" As a result we will suppose you receive these sentences:

"Last summer our garden was full of green grass and beautiful flowers, and the trees were loaded with apples and other fruit."

"When summer comes the grass and flowers will grow and the apples will ripen on the trees."

This exercise may be continued for some time, and the pupils be encouraged to write more than a single sentence. After suitable practice in these ways you may assign some particular subject on which they may write more fully. Be sure that your subjects are suitable, and such as your pupils will be interested in. If you would have them write something you must ask them to write about something which they understand, and in which they feel interested. At every step be very careful to commend as far as possible, and to censure as little as possible. Sometimes a word of censure may crush out all interest and make future efforts almost useless. Tell your pupils, so far as possible, that they have done well—and then they will be prepared to hear you say—"But while you have done well, you can, I think, do still better if you will try." In a future article we will endeavor to give a few hints for more advanced pupils.

EXPERIMENTS FOR YOUNG TEACHERS.

BY MARK PITMAN, NEW HAVEN.

Among the various exercises for waking up mind and stimulating a desire to know more, none are more likely to succeed than experiments in Natural Philosophy and Chemistry if judiciously conducted. This is especially true in those neighborhoods where scholars have few opportunities of attending scientific lectures and of sight-seeing generally. Though the teacher may have but little scientific knowledge, if he have some mechanical ingenuity,

by following a few simple directions, he may give a pretty series of experiments that will be quite certain to interest his pupils, and may be the means of enlarging his own knowledge.

If the experiments are performed for the purpose of illustrating certain facts and principles, and are accompanied by suitable explanations, the exercise may be dignified by the name of lecture. Such lectures may be given at stated intervals, and the new facts, principles, and words, thus brought to the notice of the scholars, may be alluded to in the school-room from day to day, until they are fixed in the memory and understanding.

I propose to suggest illustrations for a single lecture of this kind, as a specimen of what may be done by one who knows but very little of the subject and has almost nothing to work with. I do not claim to offer anything worthy of the attention of the scientific teacher who has abundant apparatus and materials at hand.

Let the subject be—

"CHEMICAL ATTRACTION, OR CHEMISM."

Experiment I. An instance of chemical combination. Pour into a glass a saturated solution of chloride of lime. The solution may be of the transparency of the purest water, so that no one would suspect the presence of any solid matter. Into this drop slowly some clear sulphuric acid. The result will be a beautiful white solid gypsum, or alabaster.

To illustrate the difference between chemical combination and mechanical mixture:

Experiment II. Mix oil and water in a phial. Shake violently and they will appear to be thoroughly mingled. After standing a short time they will separate. They were simply mechanically mixed. There was no union.

Experiment III. Another example. In a long phial put first iron filings: secondly, finely pulverized marble or chalk: thirdly, water slightly colored: fourthly, oil. These being of different densities, and in their present condition having no attraction for each other, will settle as at first arranged after being shaken quite violently.

Experiment IV. To a portion of the contents of the phial in experiment two, add a strong solution of potash, then shake. There is now a chemical union of the three substances, they all disappear, and the result is a single homogeneous substance, soap.

Experiment V. To the remaining portion of the contents of the phial in experiment two, add ammonia and shake. Chemical combination takes place, and liniment is formed.

Experiment VI. From the phial used in experiment three, turn off the oil, and pour nitric acid gently into the phial. It will be seen to unite chemically with the iron, chalk, and water, resolving the whole into a bluish homogeneous mass.

Here define and explain the terms chemical attraction, chemism, affinity, combination, &c., as illustrated by experiments 1st, 4th, 5th, and 6th, and distinguish from mixture, as illustrated by experiments 2d and 3d, and solution as illustrated in many familiar ways. Next, illustrate some of the changes in the forms and colors of bodies produced by chemical combination.

Allow me now to describe experiments as briefly as possible, remarking for the benefit of those who are wholly inexperienced, that generally the two substances should first be exhibited in separate glasses, then poured together and the result shown.

Two liquids, by uniting chemically, may produce a solid, as in experiment 1st, and

Experiment VII. To a saturated solution of camphor in alcohol, add water. The superior attraction of water for alcohol overcomes the weaker attraction of camphor. The alcohol leaves the gum and joins itself to the water.

Experiment VIII. Carbonate of soda and sulphuric acid.

Experiment IX. Sugar of lead and tartaric acid. Two solids may produce a liquid.

Experiment X. Salt and pounded ice.

Experiment XI. Triturate in a mortar half-an-ounce each of sulphate of soda and sugar of lead; or, in place of sulphate of soda, use sulphate of zinc or chloride of lime. The result will be a liquid.

Two gases may produce a liquid.

Experiment XII. Hold a cold glass receiver over the flame of an alcohol lamp. The moisture that gathers on the interior surface of the glass is water, formed by the union of oxygen and hydrogen gases in the flame.

Two gases may produce a solid.

Experiment XIII. Brush the inside of a tumbler with a feather dipped in nitric or muriatic acid. Wet another tumbler, in the same manner, with ammonia. Now invert one tumbler over the other. The two invisible gases which fill the tumblers unite, forming the white solid nitrate or muriate of ammonia, appearing in the tumblers in the form of smoke.

Chemical action produces changes of color.

Experiment XIV. Having previously turned boiling water upon some leaves of blue cabbage, and allowed them to stand half-an-hour, and then care-

fully turned off the liquid, place this now upon the table in a pitcher, so that the color may not be seen. Place upon the table four glasses, the first empty, the second having in the bottom a little vinegar, the third a teaspoonful of a strong solution of saleratus, the fourth a like quantity of alum in solution. Then fill each glass from the pitcher. The result will be four colors.

Experiment XV. Into the first glass, in the last experiment, drop ammonia, stirring with a glass rod or a clean stick until the color is changed to green. Then drop sulphuric acid until the blue color is restored. Then continue to drop and stir until the color is changed to a dull red.

Experiment XVI. To a very weak solution of clean copperas, which should be nearly colorless, add a perfectly colorless solution of tannin. The result is ink.

Experiment XVII. Add to the preceding, oxalic acid in solution, dropping slowly and stirring until the black color disappears.

Experiment XVIII. Add to the last, tannin, and recall the ink.

Experiment XIX. To a solution of blue vitriol add ammonia. Result, deep blue.

Experiment XX. Add to the last, ammonia. Pale blue.

Experiment XXI. Add to the last, ammonia. Intense blue.

Experiment XXII. Turn the whole into several quarts of clean water.

Experiment XXIII. Put in one glass a solution of iodide of potassium; in another, a solution of corrosive sublimate. Turn together. This is one of the most beautiful experiments, illustrating change of form and color.

Most of the solutions mentioned above should be perfectly transparent. The materials can be obtained at trifling expense at the druggists. Only a few grains of each chemical will be needed.

TOURS OF OBSERVATION AMONG THE SCHOOLS.

BY A. PARISH, SUPT. SCHOOLS, NEW HAVEN.

No. II.

"Indeed, this has been a day of revelations to me! I have seen so many new things, and so many familiar processes under new aspects, that I have more 'food for thought' than I can well digest in a short time, and I shall need some explanation to aid me in some things I do not clearly comprehend. While much of the discipline has seemed to me almost perfect, while the movements of the classes and the teaching generally has been admirable, my attention has been drawn to the great difference observable in the manners and methods of the teachers at their work. I had thought that school-keeping was about the same thing everywhere, and that the difference in schools depended more on the difference in the character of scholars than anything else. But to-day we have seen some of the most ambitious, orderly, well-behaved classes composed of children evidently from homes where neither home discipline nor home teaching could have aided them much; and, on the other hand, in rooms comprising a large proportion of children from the more intelligent families, the pupils seemed restless, unrestrained in their actions, and inattentive to their studies. I should be glad to know whether the difference depends on the teacher, or on other circumstances."

"Do you recollect the shrewd remark of him who said that 'an able general to command a herd of asses was better than an ass to direct the movements of an army?' Where numbers are to be controlled according to some established system, a controlling power is indispensable. Ability to guide, persuade, or command a single human being, moved by impulses arising from intellectual perceptions, desires and passions, is often a most difficult thing to do successfully; but multiply the individual by fifty, one hundred, or five hundred, and the task is largely increased, and failure is rendered more probable, under an incapable head, in proportion to the increase of numbers. But to an efficient director large numbers become an element of strength, under a thoroughly developed system, as multitudes of timbers in the framework of a house, properly arranged, brace and strengthen the whole structure. A wise and efficient controlling power is nowhere more needful than in the direction of large numbers of children. I am glad your attention has been arrested by the difference in the methods, habits, and spirit of the several teachers you have seen at work to-day."

"I think I comprehend better now, than ever before the force of that maxim, 'as is the teacher so is the school!' A very forcible illustration we had in two rooms comprising the younger class of children. In one, the teacher seemed to have the power of a steam engine, and she moved about among the little ones as if about to crush or annihilate any one that dared to disobey. Her voice was loud and the tone impatient and imperious. She moved among the children with a threatening air,

which seemed to say, let me see one of you out of "position" and "you'll catch it!"

"Well, was not her room quiet and in good order? Did not the children attend to their duties as she required?"

"To be sure. There was stillness like that which precedes the tornado, or earthquake. It was really oppressive. To stir seemed to be regarded as a heinous crime. Fear was visibly stamped upon the countenances of the little ones. For the slightest offence she would pinch an ear, pull the hair, or give the culprit a violent shake, accompanied with a sharp word of rebuke that was evidently designed to make their ears tingle in another way. And not only did I observe signs of fear, but anger and dislike, not to say hatred and disgust, so far as such young specimens of humanity were capable of exhibiting those feelings. But, I wish you would tell me what you think of those punishments and such a spirit."

"I do not hesitate to say that they are very proper and consistent kinds of punishment for that style of government in the school which you have witnessed. The teacher who scolds, threatens, and storms with words, very naturally and necessarily carries out her system in action, by pulling the hair, cuffing the ears, handling roughly, and whipping. The key note of her government is *fear*; and whatever words or acts, on her part, will inspire dread, are appropriate to the system she adopts. But, remember, with no other method of control can they be consistent.

When the teacher is filled with passion, exhibits it freely on the slightest provocation, expresses it by word, and makes it known by action, she is unconsciously creating and intensifying the very spirit she desires to subdue. See how it works. The child transgresses; whether intentionally or accidentally is immaterial. Retribution follows instantly by a blow on the ear, or a sharp jerk of the hair. The pain is keen, and instantly causes a feeling of passion in the child, such as sudden pain naturally incites. A sense of the *wrong done* by the child seldom accompanies the feeling, but simply a flash of anger produced by the pang. The child excited is likely to commence crying aloud, or perhaps to utter language which the teacher regards as highly disrespectful. This is a new transgression which requires an additional punishment; and so the excited feelings of both pupil and teacher receive a new impulse. *Now* the aim of the teacher is changed from what should have been her first purpose, viz: to make the child conscious of wrong doing, which with proper treatment should have been followed by penitence and a sincere determination to do right. Consider how far this teacher was from creating an obedient spirit, by the exasperating mode of punishment, which only arouses the bitterest feelings of the heart. It is a long and difficult process, to return from that state of mind in which anger, indignation, resentment, and hate commingled, shut out every other thought and feeling, to that which shall enable the offender to see his error, to yield a cheerful spirit of obedience, to respect again and love as before, the person who has caused such a perturbation of spirit and bodily suffering."

"Am I to understand by these remarks that you condemn corporal punishment altogether?"

"I only wish now to express my hearty disapprobation of all kinds of petty, irritating punishments which irascible teachers are so apt to use under excitement. Not hair pulling, ear twitching, and cuffing only, but provoking, sharp words, degrading epithets, expressions of ridicule and odious comparisons, these all create the state of mind opposed to that submissive, obedient spirit which is indispensable in a well managed school. Of the employment of corporal punishment in school we shall have occasion to speak hereafter. It is enough now to say, that a harsh, unsympathizing spirit, coarse and ill timed expressions and unrefined manners are more objectionable even than the use of the rod. Comparatively few teachers possessing these repulsive characteristics remain, and it is to be hoped that their numbers will rapidly diminish."

"How widely different was the appearance of that other room, in the same school, which we visited this morning. I was immediately impressed with the quiet, self-possessed manner of the teacher, and the satisfied, happy expression of every child in the room. There was a kindness and gentleness in the tone of the teacher's voice, a cheerful look of sympathy in her countenance, that seemed to make all the children look up to her as their best friend. Did you notice their promptness to obey her directions? In every action they appeared to study how to please her, while the teacher's policy obviously was so to conduct the exercises of the school that the children should find pleasure in them. I verily believe they would choose to be with their teacher in the school, if they could have their choice, rather than stay at home, or even be out of doors at play."

"You are right. The mutual attachment of teacher and pupils in that room is remarkable; and the results are exceedingly satisfactory. The chil-

dren are kept in a cheerful, buoyant state of mind that contributes to their success in learning their lessons; so they make rapid progress in their studies. Then, too, they are kept in a cheerful state of mind, which tends to cultivate an amiable disposition in the formation of character. Ready obedience becomes habitual with them when they find pleasure in doing what is required of them. This method of conducting the school gives us a glimpse of its real object and the true idea of education, viz: not only the culture of the intellectual faculties, but the cultivation of right motives and habits of feeling, a genial spirit, a facility to associate pleasantly with others, as among the first steps in the child's education.

But we are wandering somewhat from the exercises of the schools, yet I hope not unprofitably. To-morrow we will witness what may lead us to discuss a different subject."

EVENINGS WITH THE STARS.—No. V.

BY W. B. DWIGHT.

In describing the relative positions of the stars, it is important to have a clear understanding as to the terms employed. For certain temporary and local purposes, it is convenient and allowable to refer everything to the cardinal points of our own horizon; the North, South, East, and West Points, and the Zenith or point over head. Thus we may say that the Pole Star is in the North, and elevated nearly half way (in our latitude) from the horizon towards the zenith, or that another star is in the Southwestern sky in May. This is the most ready method for popular use. But the only true and universal method is to look upon the heavens as a great concave globe, divided and measured like our globe—and to locate its features entirely independently of our own position. Thus the Pole Star is the proper North Point, (and not the North Point in our horizon.) All stars are south of the Pole Star. To ascertain, then, of two or more contiguous stars which is the more southerly, starting from the Pole Star, strike an imaginary straight line between it and each star in question, and you can determine in a moment which is the more northerly or southerly. For instance, with Castor and Pollux of Gemini full in view, we are anxious to determine which is Castor. Our chart tells us that Castor is the more northerly. But their position in the heavens is such that any reference to the horizon or north point is utterly futile. Now strike the line from the Pole Star to each, and you will detect at once the nearest and consequently the most northerly, which is Castor.

True easterly and westerly courses are computed on imaginary parallels of latitude, concentric about the Pole Star. Now look at the Pole Star: imagine it the center pivot of a clock face; sweep your finger in a circle around it in the same direction that the hands of the clock travel. Your finger is passing constantly from west to east as you pass around each circle, large or small, and stars in it behind your finger are west of all stars in it in front of your finger. You will notice at once the difference between this and the horizon reckonings; for while in all the upper arcs of these circles, the easterly and westerly bearings correspond with our customary notions of direction in all the lower arcs, they trend in exactly the opposite courses. As you sweep your hand, then, *above* the North Star from left to right in a horizontal direction, you are describing an easterly course, which conforms with our ordinary compass course; but as you sweep your hand from left to right *below* the North Star, you are describing, contrary to our usual notions, a westerly course. This point should be studied carefully, comparing the chart with the heavens till it is thoroughly mastered. In the popular Burritt's Atlas, you will find the east and west courses indicated at the margins of most of the maps, but omitted in the two circumpolar charts. It will be well to supply this lack by sketching a curved arrow close by the outer circumference of each map, pointing in the direction in which the hands of the clock move. Then mark the point of the arrow, E, and its feather, W, and it will prove convenient.

In astronomical descriptions the context will generally show at once whether the true celestial position is indicated, or whether it is simply referring to our horizon.

Some aptitude in judging of apparent distances is requisite. The unit is a degree of a celestial great circle. A little practice will make one familiar with the intervals of 5°, 10°, 20°, &c., estimating by certain standards soon to be given.

The whole secret of a rapid mastery of the constellations seems, in the experience of the writer, to consist in taking from the map *ranges* and distances from known points towards conspicuous stars in unstudied constellations; then by locating these ranges in the heavens the new groups will be made out. The forming of imaginary triangles and rectangles by which to recognize certain constellations will be found of much use.

Astronomers usually make a threefold division of

the constellations into those respectively within, north of, and south of the zodiac. But for practical class instruction we have found it far more convenient to adopt a somewhat different division for our latitude. We prefer to consider, first, the circumpolar constellations, or those which are always visible in their circuit around the Pole; then the zodiacal groups, and lastly the remaining constellations, north and south of the zodiac.

MISCELLANY.

PROF. AGASSIZ'S NORMAL SCHOOL FOR NATURAL HISTORY.

We are indebted to the Springfield *Republican* (Mass.) for a full and interesting account of the present status of this noble enterprize, from which account we gather tho following facts:—

Prof. Agassiz and his associate Prof. Shaler, have been for six or eight months devising a new-fashioned Normal School to be kept on Nantucket Island during the summer vacation. An allusion to this project in the papers chanced to meet the eye of Mr. Anderson, of New York, a tobacconist millionaire. Mr. Anderson has not previously shown any special interest in the cause of education, but this touched a vein. He at once sent two of his friends to offer Prof. Agassiz an island which he owned and also money if needed. The island is Penekese, one of the Elizabeth islands, discovered in 1602 by Bartholomew Gosnold, and only a mile or two from Cuttyhunk, the westernmost one where Gosnold built his fort.

Mr. Anderson bought this island four or five years ago as a summer retreat. It contains 100 acres, good buildings worth $25,000, a good wharf, and is less than 20 miles from New Bedford, and about 10 miles from Martha's Vineyard. There is daily communication with New Bedford. Plans for additional buildings are in course of preparation, and Prof. Agassiz hopes to open his school for 50 pupils there on the 1st of July. It is intimated that Mr. Anderson's munificence will extend further to endowing the school as a permanent branch of the Educational Department of the Massachusetts Museum of Technology. The offer of the ownership of the island was first made to Prof. Agassiz, but in the interests of science he declined it, and it will be conveyed to trustees.

The students collected here during the summer months will investigate nature in the waters around Penekese, and work in the island laboratories.

During the first term of the new Normal School, next summer, there will be an array of scientific talent in the corps of instructors never before seen in any school in America. The director of the whole will be Prof. Agassiz, who will give instruction in general zoölogy and the embryology of vertebrate animals. Prof. N. S. Shaler will teach what is known of paleontology, and Dr. B. G. Wilder, of Cornell, the comparative anatomy and physiology of the vertebrates. Count Pourtales of the U. S. coast survey, one of the best deep sea dredgers in the world, will discourse of "the Animals and Plants Living in Deep Waters;" Prof. S. F. Baird, the U. S. fish commissioner, of the "Preservation of our Sea-fisheries," and Theodore Lyman, our Massachusetts fish-commisioner, of fish-breeding. Mr. Alexander Agassiz, the professor's son, will deal with the "Embryology of the Radiates," and Prof. Morse with the "Natural History and Embryology of the Mollusks." Dr. Hagen, of the Massachusetts museum, will treat of entomology and collections of insects injurious to vegetation, and there will be practical exercises in the use of the microscope, under Prof. Bicknell. Other instruction will be given in "Natural History and Embryology of the Articulates," by A. S. Packard, Jr., of Bowdoin College and the Peabody Academy of Science in Salem; in "Natural History of the Fishes and Reptiles," by F. W. Putnam, also of the Peabody Academy in Salem; in "Natural History of Birds and Mammals," by J. A. Allen, of the museum of comparative zoölogy; on "Breeding, and Nests and Eggs of Birds," by Dr. Thomas W. Brewer; "Instruction in Drawing and Painting of Animals," by Paulus Roetter; "The Physics of the Sea," by Prof. Lovering of Harvard; "Physical Hydography," by Prof. H. Mitchel of the coast survey; "Chemistry of Feeding and Breathing," by Prof. Gibbs of Harvard; "Chemistry of the Sea and Air," by Prof. Crafts, of the Technological Institute; and other subjects by other skillful persons.

Only 50 students can be received, this year, but these will be of both sexes, and must be either professors, teachers, or persons fitting themselves to be teachers. The instruction will be gratuitous, and the only charge made will be for board. Many applications have already been received by Prof. Agassiz, and they come daily from all parts of the country. He will probably refer these applications to the superintendent of instruction or secretary of the board of education in each State, to select those who ought to be admitted, since there are likely to be ten times as many applicants as can be admitted. During the month of April a prospectus of the school will be published, with full particulars about it.

ANCIENT MONUMENTS OF AMERICA.

At a late meeting of the American Geographical Society, Augustus Le Plongeon, M. D., LL. D., read an interesting and valuable paper on "Coincidences between the Monuments of Ancient America and those of Assyria and Egypt."

The lecturer described the high state of civilization

which the ancient Peruvians enjoyed before the advent of the Incas, who endeavored to supplant it by substituting for it another and a poorer form. These ancient Peruvians understood the formation of the dome and arch. Vases made by them might easily be mistaken for Etruscan ones. In dress, only, the Mexican, Peruvian, and Assyrian were in many respects similar. The rope-writing of the Peruvians was in use among the Chinese 3,000 years ago. There were also many remarkable coincidences in pictorial representations. From the remotest antiquity the inhabitants of Peru, like the ancient Aryans, had arrived at the sublime conception of the Unity of the Supreme Being. Its worship was universal throughout the country, but it seems to have been particularly honored at the city which bore his name, and where a magnificent temple, which to-day presents the appearance of a mass of unburned bricks, was consecrated to him. They called him Pachacamac (the creator of the world)—the Ahuramazda of the Aryans. The Assyrians likewise conceived the idea of the unity of God, called him Asshur, and worshiped him throughout Assyria. The existence of Nara, "the divine and eternal spirit which pervades the universe," is taught in the Manara-dharma-sastra, the old Hindoo laws of Manu. The Egyptians also recognized one supreme God, who had no beginning and would have no end, and called him Nuk pu Nuk (I am that I am). That this was the original worship of Egypt, the temple of King Shafre, by its freedom not only from idols, but even from symbolic decorations, admits of no doubt.

The Assyrians had two triads. The first triad was of a cosmogonic character, personifications of the primordial chaos, of the power that reduced it to order, and of the intelligent spirit of the universe. The second triad consisted of Hurki-Shamas and Iva. It was of an astronomical character and personified the moon, the sun, and the atmosphere.

The Egyptians likewise had several triads, but the most revered was composed of Osiron, Isis, and Horus. This was worshiped throughout Egypt. It is said that the Egyptians inherited this idea of the triads from the Hindoos, who held that Parabrahma, the Supreme God, was a triune being formed of Braha, Vishnu, and Siva. But whence did the inhabitants of Peru derive their trinity, Pachacamac, Con, and Viracocha (the foam of the sea)?

The worship of Pachacamac was general throughout Hahuantin-Suvu. At the time of the advent of Mancocapac, this monotheism only existed among a certain class of people, while a kind of pantheistic polytheism similar to that of the Aryans had spread among the masses who had deified not only the heavenly bodies but also the powers of earth, air, and water. Like the Aryans again, they were led to the dualistic doctrine of two opposite divine principles which received its full development during the reign of the Inca's dynasty. That similarity of religious ideas between those primitive people so far apart is certainly most remarkable. No less so is the Great Serpent worship of the Turanians, which seems to have been also in vogue among the Moyas of Yucatan, the Mexicans, and the rearers of the palaces of Tiahuanuco.

Now the question arises, did the Aryans receive their pantheistic polytheism from America? Did some of the inhabitants of this continent emigrate among the Turanians and import the worship of the Great Serpent, or has the contrary taken place? For his part, the lecturer asserted that these ideas originated in the American continent, and thence were carried into Asia and have spread among its inhabitants. The world formerly varied in physical character at different epochs, and races traveled before the approaching, and followed the receding waters from the East to the West, bringing with them their dress, arts, and religious beliefs.

RESULTS OF SANITARY IMPROVEMENTS OF TOWNS.

BY STEPHEN SMITH, M. D., NEW YORK.

History abounds with examples of cities which were anciently very unhealthy, but which became noted for the longevity of their inhabitants after they fell under the dominion of civilized conquerors. The reforms which were instituted related generally to an improvement of the dwellings of the people and to drainage. London and Paris are striking examples of improvement in the public health on the introduction of sanitary works. In the seventeenth century London was the most unhealthy capital of Europe, and though no decided efforts were made to improve her sanitary condition until within the last quarter of a century, the health of her people has gradually improved, until now she is the healthiest of the large cities of the world. At the beginning of the fourteenth century, Paris lost her population at the rate of fifty in every one thousand annually, and though she has increased three hundred and fifty times since that period, previous to the late war, her death-rate was about twenty-eight in the one thousand living. At the close of the sixteenth century the average duration of life in Geneva was about 21 years, and in 1833 it was 45 years and 5 months. Sanitary science is now cultivated in England with an enthusiasm and success creditable alike to her Government and people. The results which have followed the introduction of sanitary works into English towns are most instructive and encouraging. They teach us that towns may be made nearly as healthy as the rural districts; that in many cases 50 per cent. of the deaths are due to causes which may be removed; that it is criminal to sit down and fold our hands when great destructive evils exist in populous towns, and declare that they are beyond all remedy. Many examples might be given in illustration, but the following will suffice:

Salisbury is an old town which formerly had open channels or canals in its streets. As the city grew, these canals became very foul with sewage and filth. Its drainage was very imperfect, and overflowing cesspools made the water of the wells very impure. It is stated that in 90 years Salisbury was visited by the plague five times, and in one attack one-fourth of all the inhabitants perished. In 1853 the authorities began the work of improvement; sewers were constructed, drains laid, streets paved, and pure water was introduced. The result is as follows: For 9 years before improvements, 27 in every 1,000 population died; for 9 years, after 20 in 1,000. Mr. Chadwick says: "One year in every three in Salisbury is a jubilee year—entirely free from death."

Croydon was once regarded as the "worst district in the country in a sanitary point of view. It had neither sewers nor drainage, and filth was everywhere allowed to accumulate. Sanitary improvements began in 1850, and were completed in 1853: they consisted in drainage, sewerage, removal of filth, and the introduction of pure water for families. The death-rate fell from 28 in the 1,000 population to 18, and one year to 15 in the 1,000.

Macclesfield is another striking example of the value of sanitary works. Its death-rate was 33 in the 1,000 before improvements were made. The year following the completion of the works the death-rate fell to 25 in the 1,000 population. And this diminished mortality was greatest in those streets where the improvements were greatest. In one street the mortality-rate fell 60 per cent.; in another 42 per cent.; in another 40 per cent.

It may be alleged that these are small towns and more susceptible of improvement than large cities, but the assertion does not prove true. It is susceptible of proof that populous towns may be so improved as to render their death-rate 10.12, and even less, in the 1,000. Liverpool was long regarded as the most unhealthy city in the civilized world. She had a population of 20,000 living in cellars, and her laboring classes were crowded into old and ill-ventilated buildings surrounded by filth, cesspools, etc. Infectious diseases, typhus, etc., prevailed to a fearful extent. In 1847 Dr. Duncan began the work of arousing the people to a recognition of the importance of sanitary reforms, and was finally successful. The cellar population was removed, fever nests were cleansed, cesspools were closed, etc., etc. The result was magical; typhus almost entirely disappeared, as also small pox, and the death-rate fell to 15 per 1,000 within 5 years. No less striking was the result of sanitary works applied in London. The London *Times* says "that the average of health throughout the City of London is higher than the average of health throughout all England, taking town and country together." The mortality in all England is at the rate of 22.8 in every 1,000 of the population; in the City of London it is at the rate of 22.3 for every 1,000 inhabitants! The improvement has been progressive; it has been slow, but steady and sure. Gradually the mortality has decreased, until the yearly death-roll of 3,763 has been reduced to 2,904 within the period of 9 years, during which the city has been under the rule of the Sanitary Commission. The deaths this year—22.3 per 1,000, or 1 in every 45 of the inhabitants—are 9 per cent. below the general average, and represent a saving of 286 lives. And secondly, this gratifying result has been obtained in the face of obstacles which seemed to be almost insurmountable."

These examples of the power of sanitary works to redeem old towns and cities from the dominion of such plagues as typhus and typhoid fevers, diarrhœal affections, diphtheria, etc., are of remarkable significance and import to the citizens of the United States. Our existing cities and villages are for the most part the growth of but a few years, and hence extremely susceptible of improvement. They admit of thorough drainage and sewerage, and pure water can be readily supplied to the inhabitants. They are as yet comparatively free from such surface saturation with excreta of man or animals as will poison the air, and measures for utilizing or rendering such materials innocuous can readily be executed.

We are also daily selecting sites for, and laying the foundations of, new cities and villages which are to be the future homes of untold thousands. These cities may be selected, and the foundations may be laid so as to render those towns as healthy as the healthiest of the rural districts, and thus confer upon coming generations the inestimable blessings of health and longevity.

—The Sanitarian.

A LETTER TO A MAN OF LEISURE WHO COMPLAINED OF WANT OF TIME.

BY PHILIP GILBERT HAMERTON.

You complain of want of time—you, with your boundless leisure!

It is true that the most absolute master of his own hours still needs thrift if he would turn them to account, and that too many *never* learn this thrift, whilst others learn it late. Will you permit me to offer briefly a few observations on time-thrift which have been suggested to me by my own experience, and by the experience of intellectual friends?

It may be accepted for certain, to begin with, that men who, like yourself, seriously care for culture, and make it, next to moral duty, the principal object of their lives, are but little exposed to waste time in downright frivolity of any kind. You may be perfectly idle at your own times, and perfectly frivolous even, whenever you have a mind to be frivolous, but then you will be clearly aware how the time is passing, and you will throw it away knowingly, as the most careful of money-econo-

mists will throw away a few sovereigns in a confessedly foolish amusement, merely for the relief of a break in the habit of his life. To a man of your tastes and temper there is no danger of wasting too much time, so long as the waste is intentional, but you are exposed to time-losses of a much more insidious character.

It is in our pursuits themselves, that we throw away our most valuable time. Few intellectual men have the art of economizing the hours of study. The very necessity, which every one acknowledges, of giving vast portions of life to attain proficiency in anything, makes us prodigal where we ought to be parsimonious, and careless where we have need of unceasing vigilance. The best time-savers are the love of soundness in all we learn or do, and a cheerful acceptance of inevitable limitations. There is a certain point of proficiency at which an acquisition begins to be of use, and unless we have the time and resolution necessary to reach that point, our labor is as completely thrown away as that of a mechanic who began to make an engine, but never finished it. Each of us has acquisitions which remain permanently unavailable from their unsoundness, a language or two that we can neither speak nor write, a science of which the elements have not been mastered, an art which we cannot practice with satisfaction either to others or to ourselves. Now the time spent on these unsound accomplishments has been in great measure wasted; not quite absolutely wasted, since the mere labor of trying to learn has been a discipline for the mind; but wasted so far as the accomplishments themselves are concerned. And even this mental discipline, on which so much stress is laid by those whose interest it is to encourage unsound accomplishment, might be obtained more perfectly, if the subjects of study were less numerous and more thoroughly understood. Let us not, therefore, in the studies of our maturity repeat the error of our youth. Let us determine to have soundness, that is, accurately organized knowledge, in the studies we continue to pursue, and let us resign ourselves to the necessity for abandoning those pursuits in which soundness is not to be hoped for.

The old-fashioned idea about scholarship in Latin and Greek, that it ought to be based upon thorough grammatical knowledge, is a good example, so far as it goes, of what soundness really is. That ideal of scholarship failed only because it fell short of soundness in other directions, and was not conscious of its failure. But there existed, in the minds of the old scholars, a fine resolution to be accurate, and a determination to give however much labor might be necessary for the attainment of accuracy, in which there was much grandeur. Like Mr. Browning's Grammarian they said:—

> Let me know all! Prate not of most or least
> Painful or easy!

And so at least they came to know of ancient tongues grammatically, which few of us do in these days.

I should define each kind of knowledge as an organic whole, and soundness as the complete possession of all the essential parts. For example, soundness in violin-playing consists in being able to play the notes in all the positions, in tune, and with a pure intonation, whatever may be the degree of rapidity indicated by the musical composer. Soundness in painting consists in being able to lay a patch of color having exactly the right shape and tint. Soundness in the use of language consists in being able to put the right word in the right place. In each of the sciences there are certain elementary notions without which sound knowledge is not possible, but these elementary notions are more easily and rapidly acquired than the elaborate knowledge, or confirmed skill necessary to the artist or linguist. A man may be a sound botanist, without knowing a very great number of plants, and the elements of sound botanical knowledge may be printed in a portable volume. And so it is with all the physical sciences; the elementary notions which are necessary to soundness of knowledge, may be acquired rapidly and at any age. Hence it follows that all whose leisure for culture is limited, and who value soundness of knowledge, do wisely to pursue some branch of natural history, rather than languages or the fine arts.

It is well for every one who desires to attain a perfect economy of time, to make a list of the different pursuits to which he has devoted himself, and to put a note opposite to each of them indicating the degree of its unsoundness, with as little self-delusion as may be. After having done this, he may easily ascertain in how many of these pursuits a sufficient degree of soundness is t-tainable for him, and when this has been decided he may at once effect a great saving by the total renunciation of the rest. With regard to those which remain, and which are to be carried further, the next thing to be settled is the exact limit of their cultivation. Nothing is so favorable to sound culture as the definite fixing of limits. Suppose, for example, that the student said to himself "I desire to know the flora of the valley I live in," and then set to work systematically to make an herbarium illustrating that flora; it is probable that his labor would be more thorough, his temper more watchful and hopeful, than if he set himself to the boundless task of the illimitable flora of the world. Or in the pursuit of fine art, an amateur discouraged by the glaring unsoundness of the kind of art taught by ordinary drawing-masters, would find the basis of a more substantial superstructure on a narrower but firmer ground. Suppose that instead of the usual masses of bad color and bad form, the student produced work having some definite and not unattainable purpose; would there not be here, also, an assured economy of time? Accurate drawing is the basis of soundness in the fine arts, and an amateur, by perseverance, may reach accuracy in drawing—this, at least, has been proved by some examples; not by many, certainly, but by some. In languages we may have a limited purpose also. That

charming and most intelligent traveler, Louis Enault, tells us that he regularly gave a week to the study of each new language that he needed, and found that week sufficient. The assertion is not so presumptuous as it appears. For the practical necessities of traveling M. Enault found that he required about four hundred words, and that having a good memory he was able to learn about seventy words a day. The secret of his success was the invaluable art of selection, and the strict limitation of effort in accordance with a preconceived design. A traveler not so well skilled in selection might have learned a thousand words with less advantage to his travels, and a traveler less decided in purpose might have wasted several months on the frontier of every new country, in hopeless efforts to master the intricacies of grammatical form. It is evident that in the strictest sense M. Enault's knowledge of Norwegian cannot have been sound, since he did not master the grammar; but it was sound in its own strictly limited way, since he got possession of the four hundred words which were to serve him as current coin. On the same principle, it is a good plan for students of Latin and Greek, who have not time to reach true scholarship (half a life time is necessary for that) to propose to themselves simply the reading of the original authors with the help of a literal translation. In this way they may attain a closer acquaintance with ancient literature than would be possible by translations alone, whilst on the other hand their reading will be much more extensive on account of its greater rapidity. It is, for most of us, a waste of time to read Latin and Greek without a translation, on account of the comparative slowness of the process, but it is always an advantage to know what was really said in the original, and to test the exactness of the translation by continual reference to the *ipsissima verba* of the author. When the knowledge of the ancient language is not sufficient even for this, it may still be of use for occasional comparison, even though the passage has to be fought through *à coups de dictionnaire*. What most of us need, in reference to the ancient languages, is a frank resignation to a restriction of some kind. It is simply impossible for men occupied as most of us are in other pursuits, to reach perfect scholarship in those languages, and if we reach it we should not have time to maintain it.

In modern languages it is not easy to fix limits satisfactorily. You may resolve to read French or German without either writing or speaking them, and that would be an effectual limit certainly. But in practice it is found difficult to keep within that boundary if ever you travel or have intercourse with foreigners. And when once you begin to speak, it is so humiliating to speak badly, that a lover of soundness in accomplishment will never rest perfectly satisfied until he speaks like a cultivated native, which nobody ever did except under peculiar family conditions.

In music the limits are found more easily. The amateur musician is frequently not inferior in feeling and taste to the more accomplished professional, and by selecting those compositions which require much feeling and taste for their interpretation, but not so much manual skill, he may reach a sufficient success. The art is to choose the very simplest music (provided of course that it is beautiful, which it frequently is) and to avoid all technical difficulties which are not really necessary to the expression of feeling. The amateur ought also to select the easiest instrument, an instrument in which the notes are made for him already, rather than one which compels him to fix the notes as he is playing. The violin tempts amateurs who have a deep feeling for music, because it renders feeling as no other instrument can render it, but the difficulty of just intonation is almost insuperable, unless the whole time is given to that one instrument. It is a fatal error to perform on several different instruments, and an amateur who has done so may find a desirable limitation in restricting himself to one.

Much time is saved by following pursuits which help each other. It is a great help to a landscape painter to know the botany of the country he works in, for botany gives the greatest possible distinctness to his memory of all kinds of vegetation. Therefore if a landscape painter takes to the study of science at all, he would do well to study botany, which would be of use in his painting, rather than chemistry or mathematics, which would be entirely disconnected from it. The memory easily retains the studies which are auxiliary to the chief pursuit. Entomologists remember plants well, the reason being that they find insects in them, just as Leslie the painter had an excellent memory for houses where there were any good pictures to be found.

The secret of order and proportion in our studies is the true secret of economy in time. To have one main pursuit and several auxiliaries, but none that are not auxiliary, is the true principle of arrangement. Many hard workers have followed pursuits as widely disconnected as possible, but this was for the refreshment of absolute change, not for the economy of time.

Lastly, it is a deplorable waste of time to leave fortresses untaken in our rear. Whatever has to be mastered ought to be mastered so thoroughly that we shall not have to come back to it when we ought to be carrying the war into the enemy's country. But to study on this sound principle, we require not to be hurried. And this is why to a sincere student all external pressure, whether of examiners, or poverty, or business engagements, which causes him to leave work behind him which was not done as it ought to have been done, is so grievously, so intolerably vexatious.

Boston Educational Institutions.—An elaborate chart, prepared for the Vienna Exposition, shows that Boston has in its public and private schools 53,000 scholars and 1,694 teachers. There are 14 orphan

asylums in the city, with thirty-seven instructors and 1,344 inmates; 93 private schools and academies, having 358 instructors and 8,247 scholars, and five business colleges, with nineteen instructors and 717 pupils. The school of pharmacy has 3 teachers and 75 pupils; the two schools of dentistry 15 instructors and 40 members; the two female colleges 31 teachers and 173 pupils. There are 157 Sunday schools, with 4,450 teachers, 43,540 scholars, and 83,700 volumes in their libraries. There are 155 churches, valued at $6,688,400, while the school property is rated at $6,260,097. The 14 public libraries contain 456,427 volumes, 232,900 pamphlets, and 1,344 maps, charts, etc; the value of their collection is $1,132,500, and of their buildings $1,026,700. The art museum has 1,000 paintings and engravings, and 200 statues and casts; the value of this collection is $100,000, and of the buildings, etc., $400,000. The scientific museum has 10,000 volumes, $100,000 worth of collections, and $138,000 in buildings. The only college has eight professors and 145 undergraduates. The school of theology has 5,000 volumes, 7 professors and 94 pupils, and the two schools of medicine 35 instructors, 195 pupils and 3,300 volumes. The polytechnic school contains 356 scholars, 36 teachers, and has 3,000 volumes. Of literary and historical societies there are eight, having 2,404 members, 23,450 volumes in the libraries, collections valued at $10,700, and instruments worth $800. The five scientific associations embrace 1,657 members and have 125,000 volumes in library. Of artistic and musical societies there are 9, and these have a membership of 3,035, 19,550 volumes, collections to the amount of $1,500, and instruments worth $2,100. There are also 6 societies for mental and moral culture, with a membership of 400. The last year the Lowell Institute gave 264 lectures, expended $31,912, and had an invested fund of $641,711. Finally there are 7 music schools, with 103 teachers and 1,859 pupils. —Springfield Republican.

An eminent Scotch divine happened to dine with the learned lawyers of the Edinburgh bar. He appropriated to himself a large dish of cresses, upon which he fed voraciously. Erskine, wishing to admonish him for his discourtesy, remarked, "Doctor you remind me of the great Nebuchadnezzar in his degradation." Just as the pet allusion was calling forth a lively titter, the reverend vegetable eater turned the laugh with the quick retort, "Ay, do I mind ye o' Nebuchadnezzar? Doubtless because I'm eating among the brutes."

Mr. P. T. Barnum ought to change his name from Phineas to Phoenix; it seems to be his nature to rise up in better feather than ever after every conflagration. He was pretty thoroughly burnt out last winter; the result is that he is all ready to give us—every large town east of the Mississippi and north of the Ohio—the largest exhibition ever afforded by one man. It will be a fine chance for teachers and pupils to study zoölogy.

The Conn. School Journal.

New Haven, May, 1873.

EDITORIAL.

The projected Normal School of Prof. Agassiz at Penekese, for practical instruction in zöological research, is an event of significant importance. It is decidedly new; it meets a necessity; it has already called forth at least one new pecuniary benefactor into the educational cause; it supplies a missing link between the highest men of science and our practical educators; it betokens a healthier tone than generally prevails among the most eminent scientists, in a willingness to spare some time and patience from their secluded technical work to the task of elevating the standard of scientific knowledge among our teachers. What a grand opportunity to obtain the choicest recreation in the summer, while also profiting by some of the choicest instructions of the age! We fear, however, that where one is rejoicing, ten will be sadly disappointed, for the incipient enterprise must necessarily have too narrow limits. All honor to Prof. Agassiz who has projected it; to Mr. Anderson, of New York, who by his munificent gift has set it on its legs; all honor to the *future* benefactors in a pecuniary way, who will doubtless soon step forward to keep it agoing; all success to the enterprise, and to such of our teachers as may avail themselves of its instructions.

We took some of our cotemporaries to task awhile ago, for their indiscriminate abuse of everything German in matters of education. We did not find fault with discriminative, judicious opposition to any objectionable elements in German usages. We simply, as in duty and generosity bound, reproved this foolish habit rooted upon our inordinate national conceit, of indiscriminately abusing anything and everything German; of trying to give ourselves the credit of many good things, of which the Germans, and not we, were the originators; of refusing to do common justice to any educational enterprise which has a Teuton cast.

As a matter of individual taste this might perhaps be left unnoticed; but as a representative element in our public press it must be rebuked as unworthy and trending towards mischief, since it lacks that whole-souled generosity which we should entertain towards all other honest and sincere fellow educators.

On the other hand, under the same beclouding of the intellect, which seems to overtake some persons whenever the word German is coupled to an enterprise, we have been evidently held to mean what we do not mean, and what no possible construction of our language can admit. We do not object, and have not objected to such discriminating criticism of German enterprises as we employ with all others. We are as firmly set against indiscriminate praise, as against indiscriminate blame. We in no way hold ourselves committed, as some seem to suppose, to any of the recent movements in favor of special German schools, or extensive and expensive German instruction in our schools. These, and similar propositions, must be discussed strictly on their merits; grave questions are involved: there may be lurking dangers which must be exposed. Certainly anything which tends to keep alive separate national sympathies and communities within our borders is perilous, and must be discouraged.

We do not propose here to discuss this question of German schools in our country, but to remind those who otherwise understand us, that we have not the slightest intention of upholding any error because it is German.

TEACHERS should be laying their plans for attendance at the meeting of the National Teachers' Association in July. The good people of Elmira are preparing to give it a very hospitable reception, and the proceedings will doubtless be of sufficient interest to repay well the trouble of attendance. A trip to Trenton Falls under the auspices of eminent naturalists is on the programme for the last day of the meeting. That locality is one of the choicest in the country for natural beauty, for the richness of its flora, and for its profuse display of geological phenomena.

ANNALS OF EDUCATION.

BIRMINGHAM.—Some years since an effort was made to have a High School located between Ansonia and Birmingham, free to all the children of the town. It is unfortunate that Derby, with a population of 8,000, and containing two flourishing boroughs, should not have a free High School. It would stimulate many to obtain a higher education than they are now satisfied with, and would encourage others who, for want of advantages, stop short of their ambition. Its influence would extend even to those who could indulge no hope of entering it.

If the town failed in her duty, the citizens of Birmingham, so far as they are concerned, have made amends. In 1869 and 70 they erected a schoolhouse that would be a credit to any city. The people are awake to the importance of giving the children the best of advantages. The local committee represent fairly the different interests of the community and keep the highest good of the school in view. The school is supplied with maps and globes, and a Campbell's "Stellar Tellurian" has lately been purchased.

The school registers per term from 425 to 450 scholars, graded and distributed in nine rooms. The higher rooms have desks for 40 scholars, the lower ones for 50, but these have been so full the present year that rooms will soon be taken from the third story. This story is now a commodious hall, but as the borough increases in population, three or four schoolrooms, with a library room, will be made from it, according to the original plan. From present prospects this must be the fate of the hall sooner than was anticipated,

Each of the nine rooms is in charge of a lady teacher, except the highest department, which is under the immediate supervision of the Principal, aided by one assistant. In this department higher English, classics, and modern languages are taught. There is a class preparing for the Sheffield Scientific School, and it is hoped that with the facilities afforded for acquiring a thorough collegiate fit, Birmingham will soon be more largely represented in the college proper. Through the action of the Board of Education instruction in singing has been made a daily exercise. Prof. Jepson's Music Reader, simple and progressive in plan, has been adopted as a text book. All the lady teachers have been able to teach this in their respective departments with very commendable success. Mr. Thomas H. Fuller, recently of Willimantic, is the successful Principal of this school.

Too much cannot be said in praise of the Acting Visitor, who not merely performs the rounds prescribed by law, but takes an active interest in the schools. With watchful guardians and enthusiastic teachers, Birmingham may feel that her school will flourish.

VERSAILLES (*Town of Sprague*).—The success of the school in this place while under the charge of Robert B. Fuller has been very grati-

fying to all interested. The examination at the close of the past term, showed faithful work done by teacher and pupil. The large schoolroom recently furnished at much expense for the senior department, was crowded with visitors who felt richly rewarded by the prompt and interesting exercises. Rev. Mr. Barber, the Acting Visitor, Hon. Giles Potter, and others present, spoke in high terms of the school. The Principal had offered a Webster's Unabridged Dictionary for a prize in spelling, which had enlisted the interest of the scholars in that branch. The prize was won by Clara Nye, and the presentation of it was made by the Acting Visitor. The other departments taught by Misses Davis and Ray were also a success.

Mr. Fuller declining a re-engagement, is succeeded by Mr. Charles Witter, an experienced and skillful teacher.

REDDING.—This town has nine school districts, besides a private high school, the latter kept by Mr. Shaw. Three of the schools have been under the charge of male teachers during the past winter. Foundery District has voted to build a new school-house, to cost about $600. Mr. Fanton, now of the Center District, taught this school last term with good success. In the Center, Boston, and Umpawaug districts are found the most advanced pupils, and these, at the recent examination, appeared to have been well drilled, especially those at the Center, in reading.

Some effort has been made to consolidate several of the districts and establish a graded school at the Center, and it is to be hoped that those advocating this measure will not give over their effort till public sentiment is fully aroused to its importance.

HIGGANUM.—Secretary Northrop held one of his most successful Teachers' Institutes in this place on the 27th, 28th, and 29th of March. This gathering was honored with the presence of Gov. Jewell, Hon. Henry P. Haven, Judge Elisha Carpenter, Hon. Cornelius Brainard, Giles Potter, Esq., Agent of the State Board of Education, Prof. R. G. Hibbard, the Elocutionist, Prof. Rice, of Wesleyan University, H. E. Sawyer, Esq., Superintendent of Schools, Middletown, and Chin Lai Sun, Commissioner of the Chinese Government, each of whom took effective part in the exercises. The Secretary's other assistants at this meeting were Rev. W. W. Belden, of Bristol; M. Pitman, Esq., Principal of the Woolsey School, New Haven; Mr. Franklin, of Middletown; and the teachers of the Normal School. The entertainment furnished to visitors by the ladies of Higganum was abundant, and the social pleasures of the repasts so richly spread for all in the church parlor of the Congregationalist Society, greatly enhanced the enjoyment of the meeting. Not less than 125 teachers and friends of education were in attendance, and, for the most part, good attention was given to the exercises. Rev. Mr. Hine, pastor of the Congregational Church, did much to make this institute the success which it was. His friendly attention to strangers was especially appreciated.

STAFFORD SPRINGS.—One of the series of Teachers' Institutes for the present spring was held in this beautiful village, on the 3d, 4th, and 5th of April. The attendance here was not large, but the traveling was very bad. The meeting, however, was one of great interest. Some of the speakers, besides Secretary Northrop, were Hon. Henry P. Haven, of New London; Prof. Thacher, of Yale College; Rev. Charles Hammond, Principal of Monson Academy, Monson, Mass., F. F. Barrows, Principal of the Brown School, Hartford; Randall Spaulding, Principal of the High School, Rockville; M. Pitman, Principal of the Woolsey School, New Britain. Prof. R. G. Hibbard read some selections on Friday evening, to the great delight of those present. The hospitality of the citizens of Stafford Springs was abundant. Visitors were welcomed to some of the most delightful homes of the place, and all left at the breaking up of the gathering with much of kindness and encouragement to remember.

GREENWICH.—A successful institute was held at this place April 17th, 18th, and 19th. It was introduced on Thursday evening by the usual lecture by Secretary Northrop. A violent rain storm interfered seriously with the assembling of the audience, which, however, was a good one under the circumstances. Friday evening was occupied by addresses by Governor Jewell, Professor Thacher, Judge Carpenter, and Professor F. T. Russell, the elocutionist.

The day exercises were held in the chapel of the Second Congregational Church. The speakers were Secretary Northrop, Prof. Russell, Prof. Heikel, of Finland, Mr. Lai Sun, Chinese Commissioner, Prof. Cruttenden, of Brooklyn, and four of the Normal School teachers. A number of teachers from across the state line favored the institute by their presence. Everything passed off well, and much courtesy was shown by the residents.

WASHINGTON.—This delightful village in Litchfield County has just enjoyed and made enjoyable, a teachers' institute, held April 24th, 25th, and 26th. The same speakers took part as at the other institutes this spring, with the addition of Prof. W. H. Brewer, of Yale College, who spoke on coal and its uses and derivatives, and Rev. Mr. Elliot of Litchfield. Mr. Elliot spoke, not as a teacher, but as an outsider, and his remarks had a ring of true metal, which touched the whole audience, and will long be remembered. He urged, in the most convincing way, the importance of the teacher's making every subject taught a part of his own personality. The attendance was quite large and well-sustained, but the charm of this most agreeable of institutes, was the eminent enthusiasm and hospitality of the residents of Washington. Every train was met by carriages, twenty or thirty of them awaiting some of the trains, and all teachers being carried back and forth free. At the Congregational Church the organist and choir were in constant attendance through Friday, and contributed some excellent music. Special mention must be made of the efficiency in making all necessary arrangements, of Mr. F. W. Gunn, the principal of the well-known school at this village. Washington is the scene of Dr. Holland's new story, "Arthur Bonnicastle." The "Gunnery," as the school-building is popularly named, is the quaint and homelike institution there described, and Mr. Gunn is the teacher worthily embalmed for all time in Mr. Bird of that famous story of today.

NORWALK.—The Down Town School professes to be a live school; challenges any school in the State in reading, spelling, arithmetic, bookkeeping, music, &c. Mr. Wm. Sturges, of Milton, is the principal, assisted by Miss A. Ball, of Norwalk. Miss Josephine Cryer, of Yantic, a graduate of the State Normal School, is teacher in the Intermediate—a first class teacher, and unusually successful in teaching music to primary scholars. Miss Mary N. Brear, of Saugatuck, has charge of the 2d Primary, and is one of a hundred as primary teacher. Miss Alice St. John has begun well in the 1st Primary. Mr. Sturges is the right man in the right place.

The District in 1868 lost their public money for want of attention to the school; but it is now well supported, representing about 24 pupils. Patrons, teachers, and pupils are all enthusiastic. Has three musical instruments. Jepson's method is used. The town has voted to support the schools forty-two weeks. An exchange states that the South Norwalk Union School District has accepted the resignation of the principal, Mr. F. S. Lyon, and has also appointed a committee to ascertain what improvements of the primary rooms are desirable, the committee to report at an adjourned meeting to be held on Wednesday evening, May 7th.

MANSFIELD.—One of our good friends, Mr. Robert P. Barrows, brother of F. F. Barrows, Esq., Principal of the Brown School, Hartford, has taught the same school, at Mansfield Center, for twenty-nine consecutive winters. Mr. Barrows is a farmer, and thus devotes his winters to teaching because of his deep interest in the common school cause.

HARTFORD.—The Anniversary exercises of the Hartford High School, S. M. Capron, Esq., Principal, occurred on Friday, April 25, in the grand hall of the High School building, and were, of course, very numerously attended. This school is one of the best of its kind in the State, if not in New England, and is the special pride of the city to which it belongs. The graduating exercises took plcae in the forenoon, the stage being occupied by the teachers of the school, the school visitors, and invited guests. The motto displayed on the wall behind the stage was: "*Viam inveniemus aut faciemus.*" The exercises began at ten, and the order was as follows:

Music.

1. Latin Salutatory—Jennie Eliza Peck.
2. The Benefits of the Civil War*—G. K. Welch.†
3. Iron in Civilization—Martha Clarke Kilbourne.
4. The Growing Power of Russia—W. W. Hakes.

Music.

5. Choked Channels—Annie Morris.
6. Influence of Great Cities—Willis Anson Briscoe.
7. Effects of Physical Training on Character—Frederick Wendell Davis.

Music.

8. Our Girls—Carrie Eliza Warner.
9. Napoleon III—Frederick Augustus Leavenworth.
10. Fenelon—Mary Francis Rearden.
11. Cui Bono—Frank Beaumont Smith†.

Music.

12. The Quiet Work of Nature—Una C. Whittlesey.
13. Opposition—William Hooker Gillette.
14. The One Capital Question—Helen Yale Smith.

Music.

15. The Element of Good—Isadore Gertrude Phelps.
16. Music—Effie Amelia Worthington.
17. Valedictory—Henry Clay Alvord.

Music.

* Equal to the second honor. † Excused.

The salutatory was very deliberately and distinctly enunciated, and was justly praised.

Miss Kilbourne, who belongs to New Britain, had a good essay, in which she demonstrated that iron is essential to civilization, and that, deprived of it, we should sink into barbarism.

Mr. Hakes in his oration sketched Russia's opportunities, and showed how she could rule Europe, when in possession of Constantinople. The young man argued well.

Miss Morris was somewhat common-place, but read pleasantly.

Mr. Briscoe discussed "The Influence of Great Cities," and Mr. Davis, "The Effects of Physical Training on Character." The delivery of both these orations was pronounced good.

Miss Warner in her essay reached the conclusion "that in all matters of finery, and especially finery of dress, our grandmothers, when they were girls, resembled, or would have done so if possessing opportunities, very much our girls of the present day; and that girls in all lands and ages will always be the same."

Mr. Leavenworth treated of "Napoleon III," in the outward circumstances of his life more particularly, and compared him in his fate with his uncle.

Miss Rearden gave a beautiful picture of "Fenelon" in his endeavors and influence.

Miss Whittlesey's essay on "The Quiet Work of Nature was well received.

Mr. William H. Gillette's effort on "Opposition" was, beyond question, the best of the day. We will attempt no report of this unique and forceful production, as want of space prevents our doing justice to it. This oration won hearty and prolonged applause from the audience.

Miss Smith's "One Capital Question" was quite humorous, and contained some very good local hits.

Miss Phelps handled her subject, "The Element of Good," with grace, and was listened to with interest.

The essay on "Music," by Miss Worthington, was decidedly one of the best presented, and elicited much applause from the young lady's friends and classmates.

Mr. Alvord, the valedictorian, discoursed "Anathema or Anathema" in a scholarly and practically stimulating way. The valedictory was of average merit, and produced about the usual effect.

After the valedictory, Mr. Capron announced the prizes for readings and declamations.

The exercises Friday evening were the presentation of diplomas by the Acting School Visitor, Rev. Mr. Fisher, and short addresses by Prof. Hart, of Trinity College, Rev. M. C. Stebbins, Principal of the Springfield (Mass.) High School, Chin Lai Sun, the Chinese Educational Commissioner, and Rev. Mr. Turner. Fine music was furnished during the evening by the Park Church singers and Miss Clara Corbin, New Britain. The piano playing of Miss Corbin merited and received high praise.

During the day Mr. Capron was privately presented with some fine bronze ornaments.

On Monday evening, April 28, the class of 1873 gave a brilliant reception in the hall of the High School building.

BROWN DISTRICT.—The teaching of German in the Brown Grammar School has been attended with very gratifying results. On Tuesday, April 22, the classes in this branch were examined in the presence of the Rev. Messrs. Fisher and W. L. Gage, Dr. N. Mayer and Mr. F. Brown attending as school visitors, and a number of others interested in this study, and gave their readings, translations, declamations, and grammar recitations in a most creditable manner. In the study of this language American children seem to be as successful as those of German parentage, and all have made excellent progress during the term.

SOUTH DISTRICT.—The examination of the schools in this district in music, on the afternoons of Wednesday and Friday, April 23d and 25th, was very satisfactory. The Jepson system of teaching music, used in these schools, seems to have been surprisingly successful. Boys and girls sung with a heartiness, an intelligence, a sweetness, and a readiness, which was thoroughly delightful. Principal Crosby has our congratulations on the success of this first examination in music in the schools under his charge.

NEW BRITAIN.—Under the superintendence of Charles Northend, Esq., Acting School Visitor for the town, and Mr. John H. Peck, Principal of the High School, many improvements have recently been made in the city schools, all of which belong to one consolidated district. Special attention has been given to the Primary Department. Two new rooms have been opened for the accommodation of the little ones, and two new teachers secured, making the whole number of teachers employed in the city schools nineteen, exclusive of those teaching in the Roman Catholic or Town School. That school continues to be greatly crowded. The course of study in these city schools has been carefully revised, and singing and drawing are now to be taught in all the grades. This reorganization of classes,

and the prospect of faithful superintendence hereafter, have inspired the teachers with fresh enthusiasm. They have felt heretofore that their labors were not noticed much, either in the way of approval or criticism. The lower grades of schools are to be supplied with maps, tablets for drawing, and apparatus for object lessons. Prof. Christ continues to teach German in all the grades, and also to give instruction in drawing. The Burritt School is fortunate in having for Principal Mrs. H. M. Bunce, the lady who so efficiently presided over the same school before her marriage. Miss E. Jennie Platt and Miss Jennie E. Law, recent graduates of the Normal School, are teaching in this school with great acceptance. The High School, under Mr. Peck and his two able assistants, Miss Hayward and Miss Hazen, is in a very flourishing condition. A class of six graduated on the evening of April 3d. Of the four young men in this class one is intending to take a college course at Yale. Very thorough work is done in this High School, Mr. Peck being a fine scholar and an efficient teacher.

PENNSYLVANIA.—Another Normal School, called the Cumberland Valley State Normal School, has just been organized and commenced operations April 15. It is located at Shippensburg. It was organized by citizens, and accepted by the State, after due inspection. The buildings are considered to be the largest and most complete in the State. A full and interesting description of it can be found in the *Pennsylvania School Journal* for April.

FLORIDA.—This State presents probably the first instance in the United States of a colored State Superintendent of Public Instruction. The present incumbent is the Hon. J. C. Gibbs, a colored man, and formerly Secretary of State.

One county in this somewhat benighted State is reported as having never had a school taught in the memory of the oldest citizen. This fact is stated by a correspondent of the *National Normal* (Ohio).

By request of Commissioner General John Eaton, Bureau of Education at Washington, D.C., A. S. Barnes & Co. (publishers, New York), have shipped to the Vienna Exposition of 1873 a full and complete set of their *National Standard School and College Text Books.* They are packed in an elegantly oiled walnut book case, and will be so exhibited as to display American schoolbooks just as they are made for home circulation. They are to be presented to the Austrian Government at the close of the Exposition.

Book Notices.

Memoir of a Brother, by Thomas Hughes, Author of "Tom Brown's School Days." Boston: James R. Osgood & Co.

The name of Thomas Hughes is sufficient to recommend any work which he may give to the world; but when he gives us a book like this—the record of a real life pure and noble—it possesses a double interest for us. Written originally for his sons and nephews, the sons of the subject of the memoir, it will be read by our own youth with avidity. Among his school-fellows he was the hero, excelling in all athletic sports, and taking a high rank as a scholar, while constant and magnanimous in his friendships. Of him the author says: "I can call to mind no single unkind, or unworthy, or untruthful, act or word of his." In mature life he was still, though leading the life of a quiet country gentleman, the valuable friend and wise counsellor, of high and pure principles, such as a country may rely upon as a tower of strength in days of trouble. It is a truly valuable book, full of suggestions toward a strong and noble manhood.

Wonders of Sculpture. By Louis Viardot. Illustrated with sixty-two engravings. New Book: Scribner, Armstrong & Co.; 1873.

This is a choice and instructive book for the teacher's library. It treats of its subject under the two heads of Ancient and Modern Sculpture. In Book first is presented quite a full view of the best known, and most admired works of Egyptian, Assyrian, Etruscan, Grecian, and Roman sculptors, and Book second introduces the reader "to all the masterpieces of modern sculpture in Continental galleries." The volume closes with an essay on American Sculpture.

An Examination of the Demonstrations of Davies' Legendre. By Charles Davies, LL.D. Published by A. S. Barnes & Co., New York City.

This is a duodecimo pamphlet of thirty-six pages by the distinguished mathematician whose works are in such general use. Its object is to defend the changes made by the author in Legendre's Geometry, and especially the method introduced of regarding the circle as a polygon of an infinite number of sides. These methods have been fiercely attacked and the able defense here given should be read by all who teach geometry.

The Critical Speller. The Student's own Hand Book of Orthography, Definitions, and Sentences, consisting of written Exercises in the Proper Spelling, Meaning and Use of Words. By Prof. A. L. Barber, M. A. New York, A. S. Barnes & Co.

The principle embodied in this work, that of requiring the pupil to write the word, separating it into its parts, is one that we have found highly successful in our own teaching. More attention and more reasoning power is

required in preparing a lesson in this way, and the work being made so thoroughly objective is not easily forgotten. This idea of the analysis and objective study of words is one that we heartily commend to all teachers, believing it to be one of the most effective ways of overcoming the evil of bad spelling which is so prevalent.

THE END OF THE WORLD. A Love Story. By Edward Eggleston, author of The Hoosier Schoolmaster, &c. With thirty two illustrations. New York: Orange Judd & Co.

The tone, as well as the literary execution of this work, is excellent. We have just read it and "The Hoosier School master," with delight, and heartily believe that both these books are good for teachers, especially the last-mentioned. Each is fascinating, and seems to give truthful delineations of life. One may absorb more of the philosophy of school government from "The Hoosier School-master," according to our belief, than from many of the formal treatises on the theory and practice of teaching.

A SHORT COURSE IN LITERATURE, ENGLISH AND AMERICAN. By John S. Hart, LL. D. Published by Eldredge & Brother, Philadelphia, Pa.

This manual gives, in a condensed form, the matter contained in the two larger works by the same author —the one on English, the other on American Literature. Our own views, and those of other journals, so fully expressed heretofore in reference to those works, apply as well to the present compendium. This work will probably find a larger demand among our public schools than either or both of the larger works, as it contains all the essential features of both.

NINETEENTH ANNUAL REPORT of the State Superintendent of Common Schools, State of Maine, for 1872.

Before opening the pages of this book we had received some unfavorable impressions in regard to it, from the perusal of a long and very severe article against it in the *Northern Border*, Bangor, Me. The points taken were, however, almost entirely points of propriety in the use of language. On examining the pamphlet, however, —we are much surprised and pained to discover in what an invidious temper this most able Report of the Maine Superintendent has thus been received by a member of the press in his own State. A laborious report of 220 pages, involving much exercise of judgment as to points treated, and much collating and study of details, is not a document to be studied as a model of excellence in composition. Almost neccessarily prepared under intense pressure of duties, little attention can be paid to the requirements of style. The most obvious impression conveyed to the reader by this series of papers, is that of painstaking earnestness, much breadth of view, and a faithful study of the many problems of the educational work. How little true earnestness there must be in one who can give for his review of this faithful labor two and a half columns of petty criticisms on its faults of expression!

We can note but few of the items of this report, which is voluminous and valuable.

The annual tuition of each pupil in the public schoo's of Maine is about $12. The average school period is 10 years. Hence, the total expense for the education of one scholar is $120. The school revenue from the State Treasury is $363,350, or about $1.50 per census scholar. This revenue is derived from three sources: —the interest on the permanent school fund from sale of lands ($317,902), amounting to $19,000;—the semi-annual tax of ¼ of one per cent. on deposits of savings banks, $120,000, and the School Mill Fund, a tax of one mill per dollar on all the property in the State, $224-530. The additional sources of revenue for the support of schools, exclusive of special appropriations by the State, are the town school tax of 80 cents per capita, established by legislature, the local funds or endowments to schools or town districts, and the voluntary taxes voted by towns.

The average compensation of the country teacher is the miserable pittance of $3.36 per week, and board.

Superintendent Johnson urges eloquently the importance of school ventilation, and recommends the purchasing of all text-books by the towns and the loaning of them to the pupils, or in default of this, a uniform system of text-books;—he deals minutely with the questions of State and county supervision, advises an obligatory enactment for education, commends the work of the normal schools, advocates the abolition of the district system, and brings up many other important points. Abundant tables of statistics are appended, and illustrations of plans of school-houses embellish this excellent report.

BIENNIAL REPORT of the Vermont Board of Education, with the Report of the Secretary; October, 1872.

The most important portion of the report of the Board, is that giving the text-books selected according to law for uniform use in the State, reasons being appended in each case for the selection. The decision was arrived at only after receiving full expressions of opinion from the leading instructors in the State, and after giving publishers full opportunity to urge their claims. It may be interesting to note the decisions. In Geography, Guyot's Series; in Arithmetic, French; in Grammar, Greene and Conant's Drill Book; Readers, The New American; History, Anderson's; Philosophy, Steele. A State School Book Repository is also recommended, from which the authorized text-books can be furnished to teachers and pupils at cost.

It is also recommended to raise the salary of the State Superintendent, Hon. John H. French, from its present meagre figure to one which will enable him to devote his whole time to the work.

The Superintendent's report deals at length with methods employed and recommended in conducting teachers' institutes, and town examinations. It also

speaks favorably of the plan of uniformity in text-books, and of abolishing district systems. The opinions and experiences of superintendents and teachers are given at much length.

APGAR'S GEOGRAPHICAL DRAWING BOOK.—This work, which we receive from Cowperthwait & Co., is intended to aid in teaching map-drawing. We do not agree with the author that "The study of geography consists principally in a study of the form and localities of the earth's surface," but we do not consider map-drawing a very important means to the ends we wish to attain in teaching geography. In no other way can a pupil gain such accurate knowledge of the features of the earth's surface as in actually representing them for himself. The Messrs. Apgar have given us a work by the aid of which any intelligent teacher can train his classes in this branch. We are pleased with their method in representing the height of mountains and the population of cities.

THIRD ANNUAL REPORT of the Board of Education, and Twenty-eighth Annual Report of the Commissioner of Public Schools of Rhode Island; January, 1873.

The report of the Board is a very short document. It advocates an extension of the evening school system, more effectual means to secure instruction for factory operatives, and the doing away of the district system. It advises the imposition of a half-mill tax on property, for educational purposes, and it gives weighty reasons for enactments to compel universal education.

The report of Commissioner Bicknell commends in strong terms the work of the New Normal School, and recommends its more liberal support. Appropriations for free public libraries, an Industrial School for boys and girls, a modification of the District system by transferring important duties to the Town Committee, and the imposition of a mill tax for school purposes are recommended. Voluminous extracts from school reports and other statistics are appended. The annual report of Mr. J. C. Greenough, Principal of the State Normal School, accompanies these documents.

MANUFACTURING, AGRICULTURAL AND EDUCATIONAL RESOURCES OF IOWA, issued under the direction of the State Board of Immigration.

Any one desirous of information in regard to Iowa may obtain a copy of the above by addressing A. R. Fulton, Des Moines, Iowa.

PROCEEDINGS of the Third Annual Convention of the German Teachers' Association, held in Hoboken, 1872.

PERIODICALS.

Hearth and Home.—It would come very hard for any one who had once been a subscriber, to have to drop this gem among family magazines. Before we forget it, let us say to all teachers who have a single sparkle of enthusiasm for natural science, that they will find here continuous successions of interesting illustrations in natural phenomena, especially on the subject of botany. The paper is rich in themes for object instruction, or little talks with the pupils, or composition practice. There are many valuable ideas for the household, there are serial stories, there are—we give it up—we can't begin to tell you all the good things. You must really get it and you will not think we have spoken, too highly of it.

The Christian Union continues to display this year the thrift which has characterized it ever since J. B. Ford & Co. took charge of it. It always comes richly laden with matter calculated to interest, while it is sure to raise the religious and moral tone of any family (not already too near perfection) which may welcome it. One great charm of this religious paper is the broad liberality with which it handles the great questions within its sphere.

SCHOOL JOURNALS FOR APRIL.

The New York Educational Journal opens with a long and able article by Mr. Herman Krusi, on Objective Teaching—its true nature, the conditions necessary to its success, and the causes of failure. Other articles are: "The Claims of Education upon the Teacher;" "Normal Schools in other Countries," and "Childhood's Wrongs."

The *National Normal* is largely editorial in its discussions. It treats chiefly of the perils under which we rest; from the Germans, of Grammar, of management, of methods of teaching beginners to read, and a classification of sciences, disguised under the title "Outline of Matter." Miss Delia A. Lathrop contributes a paper on Reading, which is of course excellent.

The Pennsylvania School Journal has—Public High Schools, by J. H. Shumaker; Mental Science—its importance to the Teacher, by Brooks; Moral Training, by D. R. Brubaker; Critics and Criticism, and The Teachers' Mission, in addition to a varied assortment of excellent editorials.

The Western has four very carefully written essays, which will be found interesting: Literature as a Study in Schools, by H. H. Morgan; Whittier (continued), by Joseph L. Sanborn; Education a Science, by Z. G. Wilson; and School Government, by B. V. B. Dixon.

The Illinois Schoolmaster gives us Lucretia Mott, by M. A. West; the third paper of S. A. Forbes, on the Making and Packing of Natural History Specimens; Modern Languages, by C. P. Merriman; and The Participials, by T. R. Vickory.

The Educational Journal of Virginia has for its leading paper, Combinations of Consonants, followed by one entitled Metaphysics and Dogmatism.

CONTENTS OF VOL. III. NO. 5.

PRANG'S NATURAL HISTORY CROMOS.—Object teaching in schools is beginning to receive the attention of late that it justly deserves. Those who attended the Institute at Birmingham a year or so ago and heard Mr. L. L. Camp's short lecture on using picture illustrations in the schoolroom, will appreciate what Messrs. L. Prang & Co. have done in their admirable Natural History Series, by Prof. N. A. Calkins. The series consists of a collection of cards, each set representing an order in natural history, colored in a beautiful manner by Mr. Prang. Take, for instance, "The Waders." A striking and familiar instance of the birds of this class is given in a large card of a bird admirably drawn by a careful artist, and beautifully colored in chromo. With this are a dozen small colored cards, representing the various classes of waders. Then a circular in this package of cards contains questions which the teacher is to put to the children to obtain from them the differences and resemblances in this family of birds, and then the differences from other families. A similar arrangment is made of plants; they are divided by their methods of growth, or their leaves, or some other natural feature, and each scholar must find out for himself the resemblances and differences. The chromo pictures of flowers and leaves are surprisingly good. In fact, it is remarkable that Mr. Prang has been able to present such beautiful work at so moderate a cost. These colored cards contain a gallery of nature, and the dullest teacher or the most ignorant parent can teach natural science with no appreciable difficulty. The analysis of each order, and the questions which should lead the child to observe, are simply and clearly given in the printed circulars accompanying each package. It is obvious that this series can be extended without limit, and very refined scientific instruction can be given in this simple "object method," even on difficult topics.

We quote from the "Plan of Instruction" the following excellent remarks by Prof. Calkins:—

"Those who live in cities have but few opportunities for observing a sufficient number and variety of animals or of plants, to enable them to make the necessary comparisons, to learn how to group them into families or classes. Even those who reside in the country fail to notice one half of the peculiarities of the animals and plants which they see every day, that they would observe had they been properly trained before they were ten years of age. What proportion of the inhabitants of any town know whether the most common animals that chew their cuds have front teeth on their upper jaw? How many people have observed whether these same cud-chewing animals get up on their fore feet or their hind feet first? How many can tell whether those animals which hunt others, and feed on their flesh, possess ears that differ in shape, and in the position on the head, from those that feed upon vegetable substances? How many children know why rats, mice, and squirrels are able to crack nuts easily; and why cats, dogs, and sheep cannot eat them? How many know that our most delicious fruits and berries belong to the same family as that beautiful flower—the Rose? How many know that the onion, the garlic, and asparagus are family relatives to the beautiful lily of the valley? Do persons living in the country, even, usually notice whether the vines of hops, beans, and other twining plants wind around their supporters in the same way, or even whether the vines of the same kind of plant always wind in the same direction? Children may be trained to notice all these things, and hundreds of other interesting facts, and thus acquire habits of careful observation, which will become invaluable to them in after years. All this can be accomplished without interfering, in the least, with their progress in any of the important studies now pursued in school. Indeed, the habit of self-acquisition in knowledge, which this training to observe nature will give, would materially aid their progress in other subjects. But beyond and better than all else, children become ennobled in their tastes by studying nature. The careful observation of the beautiful forms, structures, and colors of plants and flowers will exert a refining influence on the minds of children. To watch the habits and observe the structure of animals will cause children to love them more, and treat them with greater kindness."

SILICATE SLATES.—We pride ourselves that no more tasteful and showy page advertisement ever appeared in any school journal, or before in this, than the one of the N. Y. Silicate Book Slate Co., in this issue. Those who can appreciate a good thing in type will be able to appreciate a good thing when they try the Silicate Slates and diamond wall slating. If you have any kind of a black-board, it will pay to try on it a coating of the Diamond Slating.

THE Committee on Course of Study and Textbooks reported that they had examined McGuffey's series of Readers (now in use), and Harpers' United States Readers, and heard the statements of the representatives of each, and they were unanimous in the belief that a change of text-books would not be beneficial. Adopted unanimously. —Cincinnati (Ohio) Commercial, March 24.

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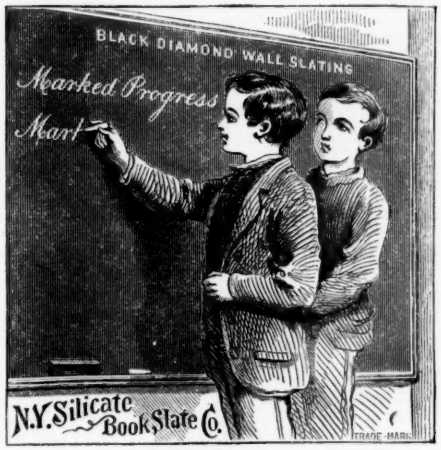

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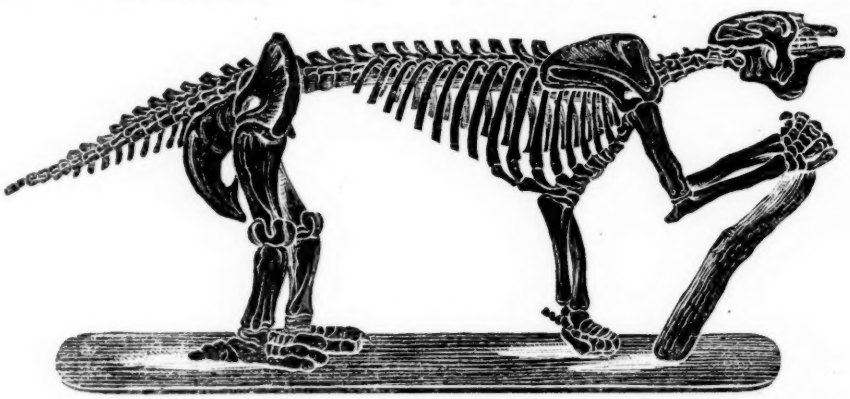

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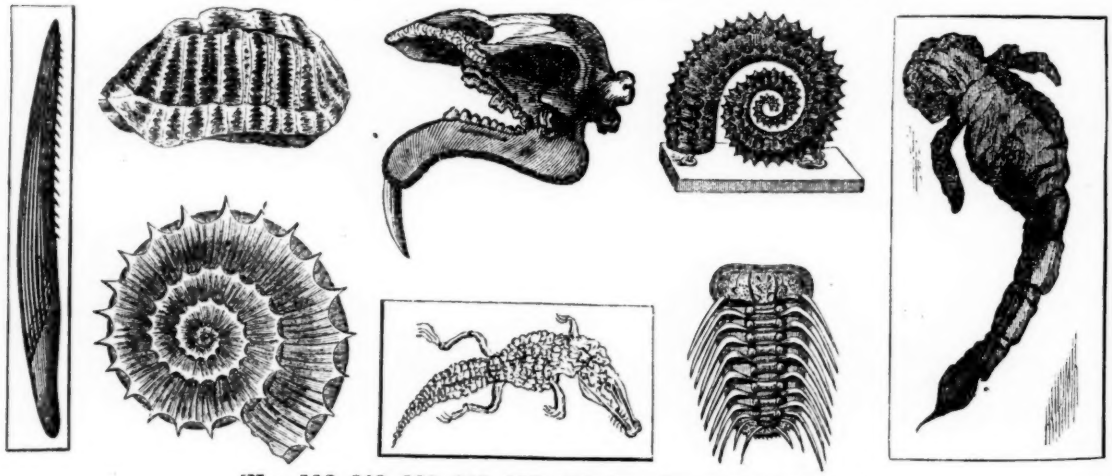

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